# 24-PORT WEB-MANAGED GIGABIT ETHERNET SWITCH WITH 2 SFP PORTS

# **USER MANUAL**

MODEL 560917





INT-560917-UM-0315-01

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# **Chapter 1 Product Introduction**

Congratulations on your purchase of the Web-Managed Gigabit Ethernet Switch. Before you install and use this product, read this manual carefully for a full understanding of its functions.

# **1.1 Product Overview**

The Web-Managed Gigabit Ethernet Switch provides a seamless network connection. It integrates 1000Mbps Gigabit Ethernet, 100Mbps Fast Ethernet and 10Mbps Ethernet network capabilities in a highly flexible package. With 24 10/100/1000Mbps Auto-Negotiation RJ45 ports, all ports support Auto MDI/MDIX function. The switch is a low-cost, easy-to-use, high-performance upgrade from your old network to a 1000Mbps Gigabit network, essential in helping solve network bottlenecks that frequently develop as more advanced computer users and newer applications continue to demand greater network resources.

For efficient management, the switch is equipped with a remote Web interface. The switch can be programmed for advanced switch management functions, such as Port Management, Link Aggregation, VLAN, Spanning Tree, Multicast, QoS, Security, Access Control, MAC Address Table, LLDP, Diagnostics, RMON and Maintenance.

# 1.2 Features

Comply with IEEE802.3, IEEE802.3u, IEEE802.3ab, IEEE802.3x, IEEE802.3z, IEEE802.3ad standards Supports IEEE802.3x flow control for full duplex mode and backpressure for half duplex mode Supports MAC address auto-learning and auto-aging Store and forward mode Supports SNMP/RMON/TELENT Supports IEEE802.1Q VLAN, 4K VLAN table Supports IEEE802.1p Priority Queues Supports IEEE802.1p Priority Queues Supports ACL Function, 1.5K-entry ALC table Supports Storm Control Supports QoS, Port Mirroring, Link Aggregation Protocol LED indicators for monitoring power, link/activity Web-based management support Internal power adapter supply

# **1.3 External Component Description**

## 1.3.1 Front Panel

The front panel of the switch features 24 10/100/1000Mbps RJ45 ports, two SFP ports, one Console port, a Reset button and a series of LED indicators as shown below.



Figure 1 - Front Panel

#### 10/100/1000Mbps RJ45 ports (1-24):

Designed to connect to the device with a bandwidth of 10Mbps, 100Mbps or 1000Mbps. Each has a corresponding 10/100/1000Mbps LED.

### SFP ports (SFP1, SFP2):

Designed to install the SFP module and connect to the device with a bandwidth of 1000Mbps. Each has a corresponding 1000Mbps LED.

#### Console port (Console):

Designed to connect with the serial port of a computer or terminal for monitoring and configuring the switch.

#### Reset button (Reset):

Keep the device powered on and press the button for about 5 seconds. The system restores the factory default settings.

#### LED indicators:

The LED indicators will allow you to monitor, diagnose and troubleshoot any potential problem with the switch, connection or attached devices.



Figure 2 - LED Indicators

The following chart shows the LED indicators of the switch, along with an explanation of each indicator.

LED	COLOR	STATUS	STATUS DESCRIPTION
_	Pod	On	Power On
Power	Reu	Off	Power Off
LNK/ACT/ Speed (1~24)	10/100Mbps:	On	A device is connected to the port
	Amber	Off	A device is disconnected to the port
	Green	Flashing	Sending or receiving data
		On	A device is connected to the port
SFP1 SFP2	Green	Off	A device is disconnected to the port
		Flashing	Sending or receiving data

# 1.3.2 Rear Panel

The rear panel of the switch features an AC power connector and ground connection as shown below.



Figure 3 - Rear Panel

#### AC Power Connector:

Power is supplied through an external AC power adapter. It supports AC 100-240V, 50/60Hz.

#### Grounding Terminal:

The switch already comes with a lightning protection mechanism. You can also ground the switch through the PE cable on the AC cord or with a separate ground wire.

# 1.4 Package Contents

Before installing the switch, make sure that the following items are enclosed. If any part is missing or damaged, contact your local agent immediately.

One Web-Managed Gigabit Ethernet Switch Four rubber feet, two mounting ears and eights screws AC power cord User manual

# **Chapter 2 Installing and Connecting the Switch**

This part describes how to install your Web-Managed Gigabit Ethernet Switch and make connections to it.

# 2.1 Installation

The following steps will help prevent damage to the device while also helping to maintain proper security.

Place the switch on a stable surface or desktop to minimize the chances of falling.

Make sure the switch works in the proper AC input range and matches the voltage labeled on the switch.

To keep the switch free from lightning damage, do not open the switch's chassis even if it fails to receive power.

Make sure that there is proper heat dissipation from and adequate ventilation around the switch.

Make sure the surface the switch is placed on can support the weight of the switch and its accessories.

# 2.1.1 Desktop Installation

When installing the switch on a desktop (if not in a rack), attach the enclosed rubber feet to the bottom corners of the switch to minimize vibration. Allow adequate space for ventilation between the device and the objects around it.



Figure 4 - Desktop Installation

### 2.1.2 Rack-mountable Installation in 19-inch Cabinet

The switch can be mounted in an EIA standard-sized, 19-inch rack, which can be placed in a wiring closet with other equipment. To install the switch, follow these steps:

a. Attach the mounting brackets on the switch's side panels (one on each side) and secure them with the screws provided.



Figure 5 - Bracket Installation

b. Use the screws provided with the equipment rack to mount the switch on the rack and tighten it.



Figure 6 - Rack Installation

#### 2.1.3 Power on the Switch

The switch is powered on by connecting it to an outlet using the AC 100-240V 50/60Hz internal high-performance power supply.

#### **AC Electrical Outlet:**

It is recommended to use a single-phase, three-wire receptacle with a neutral outlet or multifunctional computer professional receptacle. Be sure to connect the metal ground connector to the grounding source on the outlet.

#### **AC Power Cord Connection:**

Connect the AC power connector on the back panel of the switch to an external receptacle

with the included power cord, then check that the power indicator is ON. When it is ON, it indicates the power connection is okay.

# Chapter 3 How to Login the Switch

# 3.1 Switch to End Node

Use standard Cat5/5e Ethernet cable (UTP/STP) to connect the switch to end nodes as described below. Switch ports will automatically adjust to the characteristics (MDI/MDI-X, speed, duplex) of the device to which they are connected.





The LNK/ACT/Speed LEDs for each port light when the link is available.

# 3.2 How to Login the Switch

As the switch provides Web-based management login, you can configure your computer's IP address manually to log on to the switch. The default settings of the switch are shown below.

Parameter	Default Value
Default IP address	192.168.2.1
Default Username	admin
Default Password	admin

You can log on to the configuration window of the switch through following steps:

- 1. Connect the switch with the computer NIC interface.
- 2. Power on the switch.
- 3. Check whether the IP address of the computer is within this network segment: 192.168.2.xxx ("xxx" range is 2-254); for example, 192.168.2.100.
- 4. Open the browser, and enter <u>http://192.168.2.1</u> and then press "Enter." The switch login window appears, as shown below.

	Login
Username:	** ** *** **
Password	•••••
Language:	English 🔹
	LOGIN

Figure 8 - Login Window

5. Enter the Username and Password (the factory default Username is **admin** and Password is **admin**), and then click "LOGIN" to log in to the switch configuration window as below.

24-Port Web-Managed Gigabit Ethernet Switch with 2 SFP Ports		Gigabit Ethernet	2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, SFP2 10, 10, 10, 10, 10, 10, 10, 10, 10, 10,
SAVE LOGOUT REB	DOT   REFRESH	I. State of the second s	
Status	<b>.</b>	System Information	
Network		System Information	
Switching	~		
MAC Address Table		<ul> <li>System Information</li> </ul>	
Security			
ACL		Information Name	Information Value
QoS		System Name	Edit Switch
Management		System Location	Edit Default Location
Diagnostics		System Contact	Edit Default Contact
Maintenance	~	MAC Address	DE:AD:BE:EF:01:02
		IP Address	192.168.2.1
		Subnet Mask	255.255.255.0
		Gateway	192.168.2.254
		Loader Version	2011.12.41872
		Loader Date	Mar 18 2014 - 11:20:25
		Firmware Version	V182M_1.26.X_26P_D150127-INTELLINET
		Firmware Date	Tue Jan 27 10:03:10 CST 2015
		System Object ID	1.3.6.1.4.1.27282.3.2.10
		System Up Time	0 days, 0 hours, 25 mins, 34 secs

Figure 9 - Configuration Window

# **Chapter 4 Switch Configuration**

The Web-Managed Gigabit Ethernet Switch software provides rich Layer 2 functionality for switches in your networks. This chapter describes how to use the Web-based management interface (Web UI) for this switch to configure managed-switch software features.

In the Web UI, the left column shows the configuration menu. The top row shows the switch's current link status. Green squares indicate the port link is up, while black squares indicate the port link is down. Below the switch panel, you can find a common toolbar to provide useful functions for users. The rest of the screen area displays the configuration settings.

24-Port Web-Managed Gigabit Ethernet Switch with 2 SFP Ports		l Gigabit Ethernet ts	ьелаем - 2,4,6,8,10,12,14,16,18,20,22,24, SFP2 алагана алагана алаган 1,3,5,7,9,11,13,15,17,19,21,23, SFP1	
SAVE LOGOUT REB	DOT	H		
Status	-	System Information		
Network	-	oystem internation		
Switching	~			
MAC Address Table		<ul> <li>System Information</li> </ul>		
Security				
ACL		Information Name	Information Value	
QoS	<b>.</b>	System Name	Edit Switch	
Management		System Location	Edit Default Location	
Diagnostics		System Contact	Edit Default Contact	
Maintenance	~	MAC Address	DE:AD:BE:EF:01:02	-
		IP Address	192.168.2.1	_
		Subnet Mask	255.255.255.0	_
		Gateway	192.168.2.254	_
		Loader Version	2011.12.41872	
		Loader Date	Mar 18 2014 - 11:20:25	
		Firmware Version	V182M_1.26.X_26P_D150127-INTELLINET	
		Firmware Date	Tue Jan 27 10:03:10 CST 2015	
		System Object ID	1.3.6.1.4.1.27282.3.2.10	
		System Up Time	0 days, 0 hours, 25 mins, 34 secs	

# 4.1 Status

Use the Status pages to view system information and status.

### 4.1.1 System Information

To display the System Information page, click **Status > System Information**.

This page allows you to configure System-related information and browse some system information, such as MAC address, IP address, firmware version, loader version and such.

SAVE   LOGOUT   REPROT   REFRESH							
System	~	System Information					
System Information							
IP Configuration							
User Configuration		• system information					
Time Settings	D	Information Name	Information Value				
SNMP Management	Þ	System Name	Edit Switch				
Port Management	~	System Description	Edit Default Location				
Link Aggregation	~	System Contact	Edit Default Contact				
VLAN	~	MAC Address	DE:AD:BE:EF:01:02				
Spanning Tree	~	IP Address	192.168.2.1				
Multicast	~	Subnet Mask	255.255.255.0				
QoS	▽	Gateway	192.168.2.254				
Security	~	Loader Version	2011.12.41872				
Access Control List	~	Loader Date	Mar 18 2014 - 11:20:25				
MAC Address Table	~	Firmware Version	v1.0b140721				
LLDP	4	Firmware Date	Wed Jul 23 11:16:23 CST 2014				
Diagnostics	~	System Object ID	1.3.6.1.4.1.10456.1.1539				
RMON	~	System Up Time	0 days, 0 hours, 5 mins, 2 secs				
Maintenance	~						

**System Name:** System name of the switch. This name will also use as CLI prefix of each line. ("Switch>" or "Switch#").

System Description: System location of the switch.

System Contact: System contact of the switch.

#### 4.1.2 IP Configuration

To display the IP Configuration page, click **System > IP Configuration**.

This page allows you to edit the IP address, Subnet Mask and Gateway.

SAVE   LOGOUT   REBOOT   REFRESH					
System	₽	IP Address			
System Information					
IP Configuration		IP Address Setting			
User Configuration Time Settings	D	Mode	Static ○DHCP		
Log Management	b	IP Address	192.168.2.1		
SNMP Management	v	Subnet Mask	255.255.255.0		
Link Aggregation		Gateway	192.168.2.254		
VLAN	~				
Spanning Tree	~	Apply			
Multicast	~				
QoS	~	✓ IP Information			
Security	~				
Access Control List	~	Information Name		Information Value	
MAC Address Table	~	DHCP State		Disabled	
LLDP	~	Static IP Address		192.168.2.1	
Diagnostics	-	Static Subnet Mask		255.255.255.0	
Diagnostics	•	Static Gateway		192.168.2.254	
RMON	~				
Maintenance					

Mode: Select the mode of network connection.

- $\ell$  Static: Enable static IP address.
- $\ell$  DHCP: Enable DHCP to obtain IP information from a DHCP server on the network.

IP Address: If static mode is enabled, enter an IP address in this field.Subnet Mask: If static mode is enabled, enter a subnet mask in this field.Gateway: If static mode is enabled, enter a gateway address in this field.

#### 4.1.3 User Configuration

To display the User Configuration page, click **System > User Configuration**.

This page allows you to Input User Name, Password Type and Password.

SAVE   LOGOUT   REBOOT   REFRESH						
Syste m	Þ	Account Manager				
System Information IP Configuration		New User				
Time Settings		User Name Password	Type Password	Retype Password		
Log Management	Þ	Clear Text	*			
SNMP Management	Þ					
Port Management	~	Apply				
Link Aggregation	~					
VLAN	~	✓ Local Users				
Spanning Tree	~					
Multicast	~	User Name	Password Type	Privilege Type	Modify	
QoS	~	admin	Encrypted	Admin	Delete	
Security	~					
Access Control List	~					
MAC Address Table	~					
LLDP	~					
Diagnostics	~					
RMON	~					
Maintenance	~					

# 4.1.4 Time Settings

## 4.1.4.1 System Time

To display the System Time page, click **System > Time Settings > System Time.** 

System time settings include time zone and Daylight Saving time.

SAVE   LOGOUT   REBOOT   RE	FRESH		
System 🗢	System Time		^
System Information IP Configuration User Configuration	System Time Setting		
Time Settings D	Enable SNTP	OEnable	
System Time SNTP Configuration	Manual Time	Year 2000 v Month Jan v Day 1 v Hours 0 v Minutes 0 v Seconds 0 v	
Log Management 🛛 Þ	Time Zone	None 🗸	
SNMP Management D	Daylight Saving Time	Disable 🔽	
Port Management 🗢	Daylight Saving Time	60 (1 - 1440) Minutes	
Link Aggregation 🗢	Descusion From		
VLAN V	Recurring From	Day Sun Y Week I Wonth Jan Y Hours V Y Minutes V Y	
Spanning Tree 🗢	Recurring To	Day Sun Y Week 1 Y Month Jan Y Hours 0 Y Minutes 0 Y	
Multicast 🗢	Non-recurring From	Year 2000 💙 Month Jan 🔍 Date 1 💙 Hours 0 💙 Minutes 0 💙	
QoS 🗢	Non-recurring To	Year 2000 V Month Jan V Date 1 V Hours 0 V Minutes 0 V	
Security 🗢			
Access Control List 🗢	Apply		
MAC Address Table 🗢			
LLDP 🗢	<ul> <li>System Time Inform</li> </ul>	tion	
Diagnostics 🗢			
RMON 🗢	Information Name	Information Value	
Maintenance 🗢	Current Date/Time	08:06:44 DFL(UTC+8) Jan 01 2000	~

## 4.1.4.2 SNTP Configuration

To display the SNTP Configuration page, click **System > Time Settings > SNTP Configuration.** 

SAVE   LOGOUT   REBOOT	r   Ref	RESH	
Syste m	4	SNTP Server Settings	
System Information IP Configuration User Configuration		SNTP Server Settings	
Time Settings	D	SNTP/NTP Server Address	(X.X.X.X or Hostname)
System Time		Server Port 123	(1 ~ 65535   Default : 123 )
Log Management SNMP Management	0 0	Apply	
Port Management	~	▼ SNTP Server Information	
Link Aggregation	▽		
VLAN	▽	Information Name	Information Value
Spanning Tree	~	SNTP Server Address	
Multicast	~	SNTP Server Port	0
QoS	~		
Security	~		
Access Control List	A		
MAC Address Table	~		
LLDP	~		
Diagnostics	~		
RMON	~		
Maintenance	▽		

**SNTP Server Address:** The IP address of the SNTP/NTP server. **Server Port:** The Port Number of the SNTP/NTP server.

# 4.1.5 Log Management

### 4.1.5.1 Logging Service

To display the Logging Service page, click **System > Log Management > Logging Service.** 

This page allows you to enable or disable the logging service, and will display the information of logging.

SAVE   LOGOUT   REBOO	T   REFI	RESH		
Syste m	~ /	Logging Service		
System Information IP Configuration User Configuration		Logging Service Settings		_
Time Settings	D	Logging Service	Enabled Obisabled	
Log Management	Þ			_
Logging Service		Apply		
Local Logging				
Remote Syslog		- Logging Information		
Logging wessage				
SNMP Management	Þ	Information Name	Information Value	
Port Management	~	Logging Service	Enabled	
Link Aggregation	▽			
VLAN	~			
Spanning Tree	~			
Multicast	~			
QoS	▽			
Security	▽			
Access Control List	~			
MAC Address Table	~			
LLDP	~			
Diagnostics	~			
RMON	√ `			

### 4.1.5.2 Local Logging

To display the Local Logging page, click **System > Log Management > Local Logging.** 

SAVE   LOGOUT   REBOO	T   REFR	SH						
System	. ~		aging					
0.1.1.6		LOCATED	99119					
System Information								
User Configuration		Local Logging	Setting					
Time Settings	Þ		Target		Severity			
Log Management	Þ	Select Targets	*	Select Levels	-			
Logging Service				-				
Local Logging		Apply						
Remote Syslog								
Logging Message								
SNMP Management	Þ	▼ Local Loggi	ng Setting Status					
Port Management	▽	Status	Target		Severity		Action	
Link Aggregation	▽	Enabled	Buffered		Emerg, Alert, Crit, Error, Warning, Noti	ice, Info	Delete	
VLAN	~							
Spanning Tree	~							
Multicast	~							
005	~							
Cognity								
A contract of the second secon								
Access Control List	~							
MAC Address Table	~							
LLDP	~							
Diagnostics	~							
PMON	- ×							

Target: Select the target to store log messages.

- $\imath$  RAM: Store log messages in RAM disk. All log messages will disappear after system reboot.
- $\ell$  FLASH: Store log messages in FLASH. All log messages will not disappear after system reboot.

Severity: Select the severity of log messages which will be stored.

#### 4.1.5.3 Remote Syslog

To display the Remote Syslog page, click **System > Log Management > Remote Syslog.** 

SAVE   LOGOUT   REBOO	DT   REFRE	SH						
Syste m	<b>▽</b> ^	Remote Lo	gging					
System Information IP Configuration User Configuration		Remote Logging	Setting					
Time Settings	D	Server Address	Server Port	Severity		Facility		
Log Management	Þ		514 (1-65535)	Select Levels	<ul> <li>local0</li> </ul>	~		
Logging Service								
Local Logging	_	Apply						
Remote Syslog								
Logging message		🝷 Remote Loggin	g Setting Status					
SNMP Management	P =							
Port Management	~	Status	Server Info		Severity	Facili	ty	Action
Link Aggregation	▽							
VLAN	~							
Spanning Tree	~							
Multicast	▽							
QoS	▽							
Security	▽							
Access Control List	~							
MAC Address Table	~							
	_							
LLDP	~							
Diagnostics								

Server Address: The IP address of the remote log server.

Server Port: The Port number of the remote log server.

Severity: Select the severity of log messages which will be sent.

### 4.1.5.4 Logging Message

To display the Logging Message page, click **System > Log Management > Logging Message.** 

SAVE   LOGOUT   REBOOT   REFRESH					
System 🗢 ^	Logging Message				^
System Information IP Configuration L	ogging Filter Select				
Time Settings	Target	Severity	Category		
Log Management b	Buffered v Select Levels	-	Select Categories 🔹		
Logging Service Local Logging Remote Syslog Logging Message	View				
SNMP Management	<ul> <li>Logging Information</li> </ul>				^
Port Management 🗢	Information Name	Information Value			
Link Aggregation 🗢	Target	Buffered			
VLAN 🗢	Severity	Emerg, Alert, Crit, Error	, Warning, Notice, Info		
Spanning Tree	Category	AAA, ACL, CABLE_DIAC MLD_SNOOPING, Platfo	3, CDP, DAI, DHCP_SNOOPING, Dot1X, GVF rm, PM, Port, PORT_SECURITY, QoS, Rate	RP, IGMP_SNOOPING, IPSG, L2, LLDP, Mirror, , SNMP	
	Total Entries	4			
Security V					
Access Control List 🗸					
MAC Address Table 🗢	<ul> <li>Logging Messages</li> </ul>				
LLDP 🗢	Clear buffered message	Refresh			~
Diagnostics 🗢	Clear buffered message	is Kerresn			
RMON 🗢 💙	<b>1</b>				~

**Target:** Select the log message source to show on the table.

- $\ell\,$  RAM: Logs store in the RAM disk.
- $\ell$  DHCP: Logs store in the FLASH.

Severity: Select the severity to filter log messages.

Category: Select the category to filter log messages.

### 4.1.6 SNMP Management

#### 4.1.6.1 SNMP Setting

To display the SNMP Setting page, click System > SNMP Management > SNMP

#### Setting.

SAVE   LOGOUT   REBOOT   RE	FRESH	
System 🗢	SNMP Setting	
System Information IP Configuration User Configuration	SNMP Global Setting	
Time Settings D Log Management D SNMP Management D	State	
SNMP Setting SNMP View SNMP Access Group	= - SNMP Information	
SNMP Community SNMP User	Information Name	Information Value
SNMPv1,2 Notification Recipients SNMPv3 Notification	SNMP	Disabled
Recipients SNMP Engine ID		
SNMP Remote Engine ID		
Port Management 🗢		
Link Aggregation 🗢		
VLAN 🗢		
Spanning Tree 🗢		
Multicast 🗸		
QoS 🗢		

#### State: SNMP daemon state.

- e Enabled: Enable SNMP daemon.
- e Disabled: Disable SNMP daemon.

#### 4.1.6.2 SNMP View

To display the SNMP View page, click **System > SNMP Management > SNMP View.** 

This page is used to configure the SNMP View. Used in the SNMP message management variables (OID) to describe the switch in the management object, MIB (Management Information Base) is a set of the monitoring network equipment management variables. View is used to control how these variables are to be managed.

SAVE   LOGOUT   REBOOT   REFRES	H.	_	_		_		_	_	
System 🗢 ^	SNMP View								
System Information IP Configuration	View Table Setting								
Time Settings D	View Name	Subtree OID	Subtree OI	D Mask	View T	ype			
Log Management 🛛 👂			All		Include ○I	Exclude			
SNMP Management ♪									
SNMP Setting	Add								
SNMP View									
SNMP Access Group 😑									
SNMP Community	<ul> <li>View Table Status</li> </ul>								
SNMP User	Manu Nama	Culture OID				Minus Tunn		Antinu	
Recipients	view Name	Subtree OID		OID Mask		view type		Action	
SNMPv3 Notification Recipients	All	.1		All		Include		Delete	
SNMP Engine ID									
SNMP Remote Engine									
15									
Port Management 🗢									
Link Aggregation 🗢									
VLAN 🗢									
Spanning Tree 🗢									
Multicast 🗢									
QoS 👻 🗸									

#### 4.1.6.3 SNMP Access Group

To display the SNMP Access Group page, click **System > SNMP Management > SNMP** Access Group.

This page is used to configure the SNMP group.

SAVE   LOGOUT   REBOOT	REFRES	н								
Syste m	-	SNMP Access	s Group							
System Information IP Configuration		Access Group Setti	ng							
Time Settings Log Management	D 6	Group Name	Security Model	Security Level	Read View Name	Write View Name	Notify View Name			
SNMP Management	Þ		v1 💌	noauth 🖌	All	None 🖌	None 💙			
SNMP Setting SNMP View SNMP Access Group		Add								
SNMP Community SNMP User		→ Access Group Stat	tus							
SNMPv1,2 Notification Recipients		Group Name	Security Model	l Securit	y Level R	ead View Name	Write View	w Name	Notify View Name	Action
SNMPv3 Notification Recipients										
SNMP Engine ID SNMP Remote Engine ID										
Port Management	~									
Link Aggregation	~									
VLAN	~									
Spanning Tree	~									
Multicast	~									
QoS	× ×									

#### 4.1.6.4 SNMP Community

To display the SNMP Community page, click **System > SNMP Management > SNMP Community.** 

SNMP v1 and SNMP v2c use the group name (Community Name) certification, which plays a role similar to the password. If using SNMP v1 and SNMP v2c, you can go directly

from the configuration settings to this page to configure the SNMP community.

SAVE   LOGOUT   REBOOT   REFRES	н							
System 🗢 ^	SNMP Commun	ity						
System Information IP Configuration	Community Setting					_		
Time Settings D	Community Name	Community Mode	Group Name	View Name	Access Rig	ht		
Log Management 🛛 👂		Basic 🖌	~	All 🗸	ro 🗸			
SNMP Management D						_		
SNMP Setting	Add							
SNMP View								
SNMP Community								
SNMP User								_
SNMPv1,2 Notification Recipients	Community Name	Group	Name	View Name		Access Right	Action	
SNMPv3 Notification Recipients	public			All		rw	Delete	
SNMP Engine ID								
SNMP Remote Engine								
Port Management 🗢								
Link Aggregation 🗢								
VLAN 🗢								
Spanning Tree 🗢 🗢								
Multicast 🗢								
QoS 🗢 🗸								

#### 4.1.6.5 SNMP User

To display the SNMP User page, click **System > SNMP Management > SNMP User**.

This page is used to create SNMP users in a group, which would have the same level of security and access control permissions.

SAVE   LOGOUT   REBOOT   REF	RESH							
System 🗢	SNMP (	Jser Table						
System Information IP Configuration	User Setting							
Time Settings D Log Management D	User Nar	ne Group	Privilege Mode	Authentication Protocol	Authentication Password	Encryption Protocol	Encryption Key	
SNMP Management ▷			noauth 💌	None	(8 ~ 16 chars)	None	(8 ~ 16 chars)	
SNMP Setting SNMP View SNMP Access Group SNMP Community	Add						1	
SNMP User SNMPv1,2 Notification	👻 User Statu	s						
Recipients SNMPv3 Notification Recipients	User Nam	e Group Pr	ivilege Mode	Authenticatio	n Protocol	Encryption Proto	ocol Access R	ight Action
SNMP Engine ID								
ID								
Port Management 🗢								
Link Aggregation 🗢 🗢								
VLAN 🗢								
Spanning Tree 🗢 🗢								
Multicast 🗢								
QoS 🗢	~							

#### 4.1.6.6 SNMPv1,2 Notification Recipients

A trap receiver entry contains the IP address of the node and the SNMP credentials corresponding to the version that is included in the trap message. When an event arises that requires a trap message to be sent, it is sent to every node listed in the Notification Recipient Table.

To display the SNMPv1,2 Notification Recipients page, click **System > SNMP Management > SNMPv1,2 Notification Recipients.** 

This page contains recipients for SNMPv1,2. It allows you configure the destination to which SNMP notifications are sent, and the types of SNMP notifications that are sent to each destination (traps or informs). The Add/Edit pop-ups enable configuring the

#### attributes of the notifications.

SAVE   LOGOUT   REBOOT   REFRES	н									
System 🤝 ^	Notification R	ecipients	SNMPv1,	2						
System Information IP Configuration	SNMPv1,2 Host Setti	ng								
Time Settings D	Server Address	SNMP Version	Notify Type	Community Name	UDP Port	TimeOut	Retries			
SNMP Management D		v1 💌	Traps 💌	public 💌	162 (1-65535)	15 (1-300)	3 (1-255)			
SNMP Setting SNMP View SNMP Access Group	Add									
SNMP Community SNMP User SNMPv1,2 Notification Recipients	▼ SNMPV1,2 Host Sta	tus								
SNMPv3 Notification Recipients	Server Address	SNMP	Version	Notify Type	Community	Name	UDP Po	rt TimeOut	Retry	Action
SNMP Engine ID SNMP Remote Engine ID										
Port Management 🗢										
Link Aggregation 🗢 VLAN 🗢										
Spanning Tree 🗢										
Multicast  QoS  V										

#### 4.1.6.7 SNMPv3 Notification Recipients

To display the SNMPv3 Notification Recipients page, click **System > SNMP Management > SNMPv3 Notification Recipients.** 

This page contains recipients for SNMPv3. It allows you to configure the destination to which SNMP notifications are sent, and the types of SNMP notifications that are sent to each destination (traps or informs). The Add/Edit pop-ups enable configuring the attributes of the notifications.

SAVE   LOGOUT   REBOOT   REF	RESH									
System 🗢	^	Notification R	ecipients	SNMPv3						
System Information IP Configuration		SNMPv3 Host Settin	g							
Time Settings D		Server Address	Notify Type	User Name	UDP Port	TimeOut	Retries			
SNMP Management D			Traps 💌	~	162 (1-65535)	15 (1-300)	3 (1-255)			
SNMP View SNMP Access Group		Add								
SNMP Community SNMP User SNMPv1,2 Notification		← SNMPv3 Host State	15							
Recipients SNMPv3 Notification Recipients		Server Address		Notify Type	User Name		UDP Port	Time Out	Retry	Action
SNMP Engine ID SNMP Remote Engine ID										
Port Management 🗢										
Link Aggregation 🗢 VLAN 🗢										
Spanning Tree → Multicast →										
Qo S 🗢	~									

#### 4.1.6.8 SNMP Engine ID

The Engine ID is used by SNMPv3 entities to uniquely identify them. An SNMP agent is considered an authoritative SNMP engine. This means that the agent responds to incoming messages (Get, GetNext, GetBulk, Set) and sends trap messages to a manager. The agent's local information is encapsulated in fields in the message.

Each SNMP agent maintains local information that is used in SNMPv3 message exchanges. The default SNMP Engine ID is composed of the enterprise number and the default MAC address. This engine ID must be unique for the administrative domain, so

that no two devices in a network have the same engine ID.

To display the SNMP Engine ID page, click **System > SNMP Management > SNMP** Engine ID.

This page allows you to define the SNMP engine ID.

SAVE   LOGOUT   REBOOT   RE	FRESH			
System 🗢	Engine ID	Setting		
System Information IP Configuration User Configuration	Engine ID Settir	gs		
Time Settings D	Use Def	ault		
Log Management ▷ SNMP Management ▷	Engine	ID DEADBEEF0102 (10-6	4)	
SNMP Setting SNMP View	Apply			
SNMP Access Group SNMP Community SNMP User		us		
SNMPv1,2 Notification Recipients	Information N	ame	Information Value	
SNMPv3 Notification	Use Default		Enabled	
Recipients SNMR Engine ID	Engine ID		DEADBEEF0102	
SNMP Remote Engine				
Port Management 🗢				
Link Aggregation 🗢				
VLAN 🗢				
Spanning Tree 🗢 🗢				
Multicast 🗢				
QoS 🗢	~			

Use Default: Select the Use Default enable or disable.

**Engine ID:** Enter the local device engine ID. The field value is a hexadecimal string (range: 10 - 64). Each byte in the hexadecimal character strings is represented by two hexadecimal digits.

All remote engine IDs and their IP addresses are displayed in the Remote Engine ID table.

#### 4.1.6.9 SNMP Remote Engine ID

To display the SNMP Remote Engine ID page, click **System > SNMP Management > SNMP Remote Engine ID.** 

This page allows you to create an SNMP Remote Engine ID.	
--	--

SAVE   LOGOUT   REBOUT   REF	RESH		
System 🗢	SNMP Remote Engine ID		
System Information IP Configuration User Configuration	Remote Engine ID Setting		
Time Settings D	Remote IP Address	Engine ID	
Log Management ♪ SNMP Management ♪			
SNMP Setting	Add		
SNMP View			
SNMP Community	✓ Remote Engine ID Status		
SNMP User			
SNMPv1,2 Notification Recipients	Remote IP Address	Remote Engine ID	Action
SNMPv3 Notification Recipients			
SNMP Engine ID			
SNMP Remote Engine ID			
Port Management 🗢			
Link Aggregation 🗢			
VLAN 🗢			
Spanning Tree 🗢 🗢			
Multicast 🗢			
QoS 🗢			

# 4.2 Port Management

### 4.2.1 Port Configuration

To display the Port Configuration page, click **Port Management > Port Configuration**.

This page allows you to configure ports, such as enabling or disabling, setting Ethernet link speeds, duplex modes and flow control.

SAVE   LOGOUT   REBOOT   RE	FRESH								
System 🗢	Port Set	ting							^
Port Management 🗢	- Fort Set	ling							
Port Configuration	Port Settings								
Port Counters	Port Selec	ct Enabled	Speed	Duplex	Flow Control				
Bandwidth Utilization Port Mirroring	Select Ports		sabled Auto	V Auto V	O Enabled   Disa	bled			
Jumbo Frame	Fiber Baute								
Port Error Disabled Configuration	TherPorts	Enabled ODi	sabled Auto-1000M		CEnabled ODisa	bled			
Port Error Disabled	Apply								
Status									
Link Aggregation 🗢									
VLAN 🗢	Port Status								
Spanning Tree 🗢 🗢	Dent	Description	Enable	Link	Canad	Dunlaw	FlowCtrl	FlowCtrl	
Multicast 🗢	Port	Description	State	Status	speed	Duplex	Config	Status	
QoS 🗢	GE1	Edit	Enabled	DOWN	Auto	Auto	Disabled	Disabled	
Security 🗢	GE2	Edit	Enabled	DOWN	Auto	Auto	Disabled	Disabled	
Access Control List 🗢	GE3	Edit	Enabled	UP	A-1000M	A-Full	Disabled	Disabled	
MAC Address Table	GE4	Edit	Enabled	DOWN	Auto	Auto	Disabled	Disabled	
	GE5	Edit	Enabled	DOWN	Auto	Auto	Disabled	Disabled	
	GES	Edit	Enabled	DOWN	Auto	Auto	Disabled	Disabled	-
RMUN Ø	GE6	cure	Enabled	DOWN		Auto	Disabled	Disabled	-
Maintenance	GE7	Edit	Enabled	DOWN	Auto	Auto	Disabled	Disabled	_

## 4.2.2 Port Counters

To display the Port Counters page, click **Port Management > Port Counters.** 

This page displays standard counters of network traffic using modes like Interface, Ethernetlike and RMON. Interfaces and Ethernetlike counters display errors on the traffic passing through each port. RMON counters provide a total count of different frame types and sizes passing through each port.

SAVE   LOGOUT   REBOOT   REF	RESH		
System ▽	Port Counters		^
Port Management 🗢 🗢			
Port Configuration	Port MIB Counters Settings		
Port Counters	Port Mode		
Bandwidth Utilization	GE1 💌 🖲 All 🔿 Interface 🔿 Etherlike 🔿 RMON		
Port Mirroring			
Jumbo Frame			
Port Error Disabled Configuration	✓ GE1 MIB Counters		
Port Error Disabled Status	Clear		
Link Aggregation 🗢	IF MIB Counter Name	MIB Counter Value	
VLAN 🗢	ifInOctets	0	
Spanning Tree 🗢 🗢	ifInUcastPkts	0	
Multicast 🗢	ifinNUcastPkts	0	
QoS 🗢	ifInDiscards	0	
Security 🗢	ifOutOctets	0	
Access Control List 🗢	ifOutUcastPkts	0	
MAC Address Table 🗢	ifOutNUcastPkts	0 (	
LLDP 🗢	ifOutDiscards	0	
Diagnostics 🗸 🗸	ifInMulticastPkts	0	
RMON 🗸	ifInBroadcastPkts	0	
Maintenance 🗢	ifOutMulticastPkts	0	
	ifOutBroadcastPkts	0	~

# 4.2.3 Bandwidth Utilization

To display the Bandwidth Utilization page, click **Port Management > Bandwidth Utilization.** 

This page displays and lets you switch each port's TX and RX bandwidth utilization.

SAVE   LOGOUT   REBOOT	REFRE SH
Syste m	Port Bandwidth Utilization
Port Management	
Port Configuration	📕 Gbps 📕 100Mbps 📕 10Mbps 📕 Link Down Refresh period: 5 🕑 sec IFG: Enable 💌
Port Counters	Тх
Bandwidth Utilization	
Port Mirroring	
Jumbo Frame	
Port Error Disabled Configuration	
Port Error Disabled Status	
Link Aggregation	
VLAN	
Spanning Tree	GE1 GE2 GE3 GE4 GE5 GE6 GE7 GE8 GE9 GE10 GE11 GE12 GE13 GE14 GE15 GE16 GE17 GE18 GE19 GE20 GE21 GE22 GE23 GE24 GE25 GE26
Multicast	☑ D1%
QoS	■
Security	× NX
Access Control List	
MAC Address Table	
LLDP	
Diagnostics	
RMON	
Maintenance	

# 4.2.4 Port Mirroring

To display the Port Mirroring page, click **Port Management > Port Mirroring.** 

Port mirroring copies the TX/RX data flow from the source port to the target, or destination, port.

System          Port Management          Port Counters Bandwith Utilization Port Kirror Setting          Port Munop Frame Pont Error Disabled Status       Session 1D       Select Session IV         Port Error Disabled Status       Monitor Session State       Disabled       V         Port Error Disabled Status       Sintifer RX Ports       Select TX Ports       V         VLAN       V       Sintifer TX Ports       Select TX Ports       V         Access Control List       Apply       V       V       Select TX Ports       Select TX Port	SAVE   LOGOUT   REBOOT   RE	RESH				
Port Configuration Port Controls Bandwidth Utilization Port Cirrol Disabled Configuration Port Error Disabled Configuration Sature Configuration Configuratio Configuratio Configuration Configuration Configuratio	System ▽ Port Management ▽	Mirror Setting				
Port Gounter's Bandwicht Ulization       Session ID       Select Session IV         Pont Mirroring       Monitor Session State       Disabled       Image: Session State       Disabled         Jumbo Frame Pont Error Disabled Configuration Pot Error Disabled Status       Destination Port       GET       Image: Session State       Disabled       Image: Session State	Port Configuration	Mirror Setting				
Monitor Session State       Disabled       ✓         Jumbo Frame Port Error Disabled Configuration Port Error Disabled Status       Disable ✓       ✓         Link Aggregation ~       ✓         VLAN ~       ✓         Spaning Tree ~       ✓         Auticast ~       ✓         OoS ~       ✓         Access Control List ~       MAA         ILIDP ~       ✓         Diagonics ~       ✓         RMON ~       ✓         Monitor Session State       Disabled ✓         ✓       ✓         Matitement ~       ✓	Port Counters Bandwidth Utilization	Session ID	Select Session			
Jumbo Frame Port Error Disabied Status     Destination Port     Image: CEL       Port Error Disabied Status     Sintifer RX Ports     Sielect RX Ports       Sintifer TX Ports     Sielect RX Ports       Saming Tree     Simifer TX Ports       Saming Tree     Sielect RX Ports       Sociely     Sielect RX Ports       Sociely     Sielect RX Ports       Session ID     Destination Port       ILDP     Session ID       Disanositics     Sintif       RMON     N/A       N/A     N/A	Port Mirroring	Monitor Session State	Disabled			
Port Error Disabled Status     Interaction     Interaction       Port Error Disabled Status     Sniffer RX Ports     Disable       VLAN     Total     Sniffer RX Ports     Select RX Ports       Spanning Tree     Sniffer RX Ports     Select RX Ports     Select RX Ports       Apply     Sniffer RX Ports     Select RX Ports     Select RX Ports       Source     Sniffer RX Ports     Select RX Ports     Select RX Ports       Source     Sniffer RX Ports     Select RX Ports     Select RX Ports       Source     Sniffer RX Ports     Select RX Ports     Select RX Ports       Source     Sniffer RX Ports     Select RX Ports     Select RX Ports       Source     Sniffer RX Ports     Select RX Ports     Select RX Ports       Apply     Select RX Ports     Select RX Ports     Select RX Ports       Source     Select RX Ports     Select RX Ports     Select RX Port       Access Control List     Select RX Port     Ingress State     Source RX Port       Select RX     N/A     N/A     N/A     N/A       LDP     Select RX     N/A     N/A     N/A       Sinter RX     N/A     N/A     N/A     N/A       Select RX     N/A     N/A     N/A     N/A       Select RX     N/A     N/A	Jumbo Frame	Destination Port	GE1			
Pot Error Disabled Status     Image Status       Shiffer RX Ports     Select RX Parts       Sintfler RX Ports     Select RX Parts       VLAN     Third Sintfler RX Ports     Select RX Parts       Spanning Tree     Sintfler RX Ports     Select RX Parts       Multicast     Third Sintfler RX Ports     Select RX Parts       Security     Third Status       Security     Session ID     Destination Port     Ingress State     Source TX Port     Source RX Port       Machadress Table     Session ID     Destination Port     Ingress State     Source TX Port     N/A       LDP     Session ID     Destination Port     Ingress State     Source TX Port     N/A       Salos     N/A     N/A     N/A     N/A       Biomonics     RMON     N/A     N/A     N/A       Waittenance     Third     N/A     N/A     N/A	Port Error Disabled Configuration	allow-ingress	Disable			
Sniffer RX Ports     Select KV Ports       Sniffer RX Ports     Select KV Ports       Sniffer TX Ports     Select TX Ports       Spanning Tree     Maintenance       VAIN     TX       Source TX Ports     Select TX Ports       Security     T       Access Control List     T       Security     Session ID       Destination Port     Ingress State       Source TX Port     Source RX Port       Session ID     Destination Port       Index Address Table     I       LIDP     Session ID       Session ID     Destination Port       Index Address Table     I       Session ID     Destination Port       Index Address Table     I       I All     N/A       N/A     N/A       N/A     N/A	Port Error Disabled Status	anow-ingress	Disable			
Link Aggregation     Constrained     Sniffer TX Ports     Select TX Ports       Spanning Tree     VLAN     T       Spanning Tree     V       QoS     T       GoS     T       Security     T       MAC Address Table     T       Diagnositics     T       QoS     T       Maintenance     T		Sniffer RX Ports	Select RX Ports 💌			
VLAN     v       Spanning Tree     v       Spanning Tree     v       Apply     v       QoS     v       Security     v       Access Control List     v       MAC Address Table     v       LLDP     v       Diagnostics     v       RMON     v       Maintenance     v	Link Aggregation 🗢	Sniffer TX Ports	Select TX Ports 👻			
Apply           Spanning Tree         Apply           Validast            Access Control List            Access Control List            MAC Address Table            LLDP            Diagnostics            RMON            Maintenance	Casaning Tree					
Mintenance     ✓       OoS     ∽       Security     ~       Access Control List     ~       MAC Address Table     ~       LLDP     ~       Iagnositics     ~       RMON     ~       Maintenance     ~	Multicaet 77	Apply				
Security     Thrror Status       Access Control List     T       MAC Address Table     Session ID       LLDP     T       I     N/A       N/A     N/A       I     N/A						
Session ID     Destination Port     Ingress State     Source TX Port     Source RX Port       MAC Address Table     1     N/A     N/A     N/A     N/A       LLDP      2     N/A     N/A     N/A     N/A       Diagnostics      3     N/A     N/A     N/A     N/A       MACH     N/A     N/A     N/A     N/A     N/A       Maintenance	Security V	✓ Mirror Status				
MAC Address Table         v         1         N/A         N/A         N/A         N/A           LLDP         v         2         N/A         N/A         N/A         N/A         N/A           Diagnostics         v         3         N/A         N/A         N/A         N/A         N/A           MAC MOH         v         N/A         N/A         N/A         N/A         N/A	Access Control List 🗢	Session ID Destination Port	Ingress State	Source TX Port	Source RX Port	^
LDP          2         N/A         N/A         N/A         N/A           Diagnostics          3         N/A         N/A         N/A         N/A           MON          4         N/A         N/A         N/A         N/A	IAC Address Table 🛛 🗢	1 N/A	N/A	N/A	N/A	
Biggnostics         Image: State of the state of th	LDP 🗢	2 N/A	N/A	N/A	N/A	
Anintenance V 4 N/A N/A N/A N/A	Diagnostics 🗢	3 N/A	N/A	N/A	N/A	
Maintenance 🗸	RMON 🗢	4 N/A	N/A	N/A	N/A	
	Maintenance 🗢					*

# 4.2.5 Jumbo Frame

To display the Jumbo Frame page, click **Port Management > Jumbo Frame.** 

SAVE   LOGOUT   REBUO	I   REI	RE-SI
System Port Management	⊽ ⊽	Jumbo Frame
Port Configuration Port Counters Bandwidth Utilization Port Mirroring Jumbo Frame Port Error Disabled Configuration Port Error Disabled Status		Jumbo Frame (Bytes) 1522 (64-9216) Apply Jumbo Frame Config
Link Aggregation	~	Information Name Information Value
VLAN	~	Jumbo Frame (Bytes) 1522
Spanning Tree	~	
Multicast	~	
QoS	~	
Security	~	
Access Control List		
MAC Address Table	~	
LLDP	~	
Diagnostics	~	
RMON	~	
Maintenance	~	

Jumbo Frame: The valid size range is 64 bytes – 9216 bytes.

## 4.2.6 Port Error Disabled Configuration

To display the Port Error Disabled Configuration page, click **Port Management > Port Error Disabled Configuration.** 

This page allows you to browse ports disabled by certain protocols, such as BPDU Guard, Loop Back and UDLD. The "Recovery" button will re-enable those error-disabled ports.

SAVE   LOGOUT   REBOOT   REP	RESH			
System 🗢	Error Disabled Settings			^
Port Management 🗢	Error Disabled Settings			
Port Configuration	Error Disabled Recovery			
Port Counters Bandwidth Utilization	Recovery Interval	300 (Seconds)		
Port Mirroring	BPDU Guard	○ Enabled    Disabled		
Port Error Disabled	Self Loop	OEnabled  Disabled		
Configuration Port Error Disabled	Broadcast Flood	○Enabled		
Status	Unknown Multicast Flood	○ Enabled		
Link Aggregation 🗢	Unicast Flood	🔿 Enabled 🖲 Disabled		
VLAN 🗢	ACL	⊖Enabled		
Spanning Tree 🗢	Port Security Violation	⊖Enabled		
Multicast 🗢	DHCP Rate Limit	🔘 Enabled 🖲 Disabled		
Qos 🗸	ARP Rate Limit	🔘 Enabled 🖲 Disabled		
Access Control List 🗢	Apply			
MAC Address Table 🗢	Арріу			
LLDP 🗢	- Free Dischlack (Strandisch			
Diagnostics 🗢 🗢	• Error Disable Information		^	
RMON 🗢	Information Name	1	Information Value	
Maintenance 🗢	Recovery Interval	3	300	

# 4.2.7 Port Error Disabled Status

To display the Port Error Disabled Status page, click **Port Management > Port Error Disabled Status.** 

This page is used to display the port error disabled status.

SAVE   LOGOUT   REBOOT   RE	RESH
System ▽ Port Management ▽	Port Error Disabled Status
Port Configuration Port Counters	→ Port Error Disabled Status
Bandwidth Utilization Port Mirroring Jumbo Frame	Port Name Error Disabled Reason Time Left (Seconds)
Port Error Disabled Configuration	
Port Error Disabled Status	
Link Aggregation → VLAN ▽	
Spanning Tree	
QoS <del>v</del> Security v	
Access Control List ₩AC Address Table	
LLDP ♥ Diagnostics ♥	
RMON	
Muniteriunee V	

# 4.3 Link Aggregation

# 4.3.1 LAG Setting

To display the LAG Setting page, click Link Aggregation > LAG Setting.

This page allows you to configure ports' aggregation rules by selecting MAC Address or IP/MAC Address.

SAVE   LOGOUT   REBOOT	T   REFI	RESH		
Syste m	~	LAG Setting		
Port Management	~			
Link Aggregation	4	LAG Setting		
LAG Setting		Load Balance Algorithm 🔘 M	AC Address OIP/MAC Address	
LAG Management LAG Port Setting LACP Setting LACP Port Setting		Apply		
LAG Status				
VLAN	~			
Spanning Tree	~	Information Name	Information Val	ue
Multicast	~	Load Balance Algorithm	src-dst-mac	
QoS	~			
Security	~			
Access Control List	~			
MAC Address Table	~			
LLDP	~			
Diagnostics	~			
RMON	~			
Maintenance	~			

# 4.3.2 LAG Management

To display the LAG Management page, click Link Aggregation > LAG Management.

This page is used to create new LAGs, configure ports' aggregation type, and select member ports.

SAVE   LOGOUT   REBOO	DT   REFR	ESH							
System Port Management	⊽	LAG	Managemer	nt					
Link Aggregation	~	LAG Manag	ement						
LAG Setting LAG Management LAG Port Setting		LAG	Name	Ty	DLACP	Ports Select Ports	-		
LACP Setting LACP Port Setting LAG Status		Apply	]						
VLAN	~	▼ LAG Mar	nagement Info	ormation					
		Erre mai							
Spanning Tree	~			-		(		0	
Spanning Tree Multicast	⊽	LAG	Name	Туре	Link State	e Active	e Member	Standby Member	Modify
Spanning Tree Multicast QoS	4 4	LAG LAG1	Name	Туре 	Link State Not Preser	e Active	e Member	Standby Member	Modify Edit
Spanning Tree Multicast QoS Security	4 4 4	LAG LAG1 LAG2	Name	Type	Link State Not Preser Not Preser	Active	e Member	Standby Member - -	Modify Edit Edit
Spanning Tree Multicast Qo S Security Access Control List	d d d d	LAG LAG1 LAG2 LAG3	Name	Type  	Link State Not Preser Not Preser Not Preser	e Active nt - nt - nt -	e Member	Standby Member - - -	Modify Edit Edit Edit
Spanning Tree Multicast Qo S Security Access Control List MAC Address Table	4 4 4 4 4	LAG LAG1 LAG2 LAG3 LAG4	Name	Type    	Link State Not Preser Not Preser Not Preser	Active nt - nt - nt - nt - nt -	e Member	Standby Member - - -	Modify Edit Edit Edit
Spanning Tree Multicast Oo S Security Access Control List MAC Address Table LLDP	4 4 4 4 4 4 4	LAG LAG1 LAG2 LAG3 LAG4	Name	Type	Link State Not Preser Not Preser Not Preser Not Preser	e Active nt - nt - nt - nt - nt - nt -	e Member	Standby Member - - - -	Modify Edit Edit Edit Edit
Spanning Tree Multicast QoS Security Access Control List MAC Address Table LLDP Diagnostics	4         4         4         4	LAG LAG1 LAG2 LAG3 LAG4 LAG5	Name Name	Type	Link State Not Preser Not Preser Not Preser Not Preser	Active at - at -	e Member	Standby Member - - - - - - -	Modify Edit Edit Edit Edit Edit
Spanning Tree Multicast Oo S Security Access Control List MAC Address Table LIDP Diagnostics RMON	4         4         4         4         4         4	LAG LAG1 LAG2 LAG3 LAG4 LAG5 LAG6	Name	Type	Link State Not Preser Not Preser Not Preser Not Preser Not Preser	Active nt - nt - nt - nt - nt - nt - nt -	e Member	Standby Member - - - - - - - - - -	Modify Edit Edit Edit Edit Edit Edit
Spanning Tree Multicast OoS Security Access Control List MAC Address Table LLOP Diagnostics RMON Maintenance	4         4         4         4         4	LAG LAG1 LAG2 LAG3 LAG4 LAG5 LAG6 LAG7	Name	Type	Link State Not Preser Not Preser Not Preser Not Preser Not Preser Not Preser	Active tt - tt -	9 Member	Standby Member - - - - - - - - - - - - -	Modify Edit Edit Edit Edit Edit Edit Edit

# 4.3.3 LAG Port Setting

To display the LAG Port Setting page, click **Link Aggregation > LAG Port Setting**.

This page is used to set LAG status, speed and flow control functions.

yste m	4	LAG Po	ort Setting							
ort Management	~									
ink Aggregation	~	LAG Port Set	ttings							
LAG Setting		LAG Sel	ect En:	abled	Speed	Flow Control				
LAG Management	_	Select LAGs	<ul> <li>Enabled</li> </ul>	d ODisabled	Auto 🗸	OEnabled  Disable	ed			
LACP Setting										
LACP Port Setting		Apply								
LAG Status										
LAN	~									
anning Tree	~	▼ LAG Port :	Status							
	_									
ulticast	~	LAG	Description	Port	Enable	Link	Speed	Duplex	FlowCtrl	FlowCtrl
ulticast o S	⊽	LAG	Description	Port Type	Enable State	Link Status	Speed	Duplex	FlowCtrl Config	FlowCtrl Status
ulticast o S ecurity	4	LAG LAG1	Description	Port Type	Enable State Enabled	Link Status	Speed Auto	Duplex Auto	FlowCtrl Config Disabled	FlowCtrl Status Disabled
ulticast oS ecurity ccess Control List	4 4 4	LAG LAG1 LAG2	Description	Port Type	Enable State Enabled Enabled	Link Status	Speed Auto Auto	Duplex Auto Auto	FlowCtrl Config Disabled Disabled	FlowCtrl Status Disabled Disabled
ulticast oS ecurity ccess Control List AC Address Table	d d d d	LAG LAG1 LAG2 LAG3	Description	Port Type	Enable State Enabled Enabled Enabled	Link Status	Speed Auto Auto Auto	Duplex           Auto           Auto           Auto	FlowCtrl Config Disabled Disabled Disabled	FlowCtrl Status Disabled Disabled Disabled
ulticast oS ecurity ccess Control List AC Address Table LDP	4 4 4 4 4 4	LAG LAG1 LAG2 LAG3 LAG4	Description	Port Type	Enable State Enabled Enabled Enabled Enabled	Link Status	Speed Auto Auto Auto Auto	Duplex           Auto           Auto           Auto           Auto           Auto	FlowCtrl Config Disabled Disabled Disabled Disabled	FlowCtrl Status Disabled Disabled Disabled Disabled
ulticast oS ecurity ccess Control List AC Address Table LDP	a a a a a	LAG LAG1 LAG2 LAG3 LAG4 LAG5	Description	Port Type	Enable State Enabled Enabled Enabled Enabled Enabled	Link Status	Speed Auto Auto Auto Auto Auto	Duplex           Auto           Auto           Auto           Auto           Auto           Auto           Auto           Auto	FlowCtrl Config Disabled Disabled Disabled Disabled Disabled	FlowCtrl Status Disabled Disabled Disabled Disabled Disabled
ulticast S curity Cess Control List AC Address Table DP agnostics	4 4 4 4 4 4 4	LAG LAG1 LAG2 LAG3 LAG4 LAG5 LAG6	Description	Port Type	Enable State Enabled Enabled Enabled Enabled Enabled Enabled	Link Status	Speed Auto Auto Auto Auto Auto Auto	Duplex       Auto       Auto       Auto       Auto       Auto       Auto       Auto       Auto       Auto	FlowCtrl Config Disabled Disabled Disabled Disabled Disabled Disabled	FlowCtrl Status Disabled Disabled Disabled Disabled Disabled Disabled
ulticast oS ecurity coess Control List AC Address Table .DP agnostics .ION	q q q q q q q q	LAG LAG1 LAG2 LAG3 LAG4 LAG5 LAG6 LAG7	Description	Port Type 	Enable State Enabled Enabled Enabled Enabled Enabled Enabled	Link Status	Speed Auto Auto Auto Auto Auto Auto Auto	Duplex       Auto       Auto	FlowCtri Config Disabled Disabled Disabled Disabled Disabled Disabled Disabled	FlowCtrl Status Disabled Disabled Disabled Disabled Disabled Disabled Disabled

### 4.3.4 LACP Setting

To display the LACP Setting page, click Link Aggregation > LACP Setting.

This page is used to configure the system priority of LACP.

SAVE   LOGOUT   REBOOT   RE	FRESH			
System	LACP			
Link Aggregation 🗢	LACP Setting			
LAG Setting	LACP Enable	🔿 Enable 🖲 Disable		
LAG Wanagement	System Priority	1 (1-65535)		
LACP Setting LACP Port Setting LAG Status	Apply			
VLAN 🗢				
Spanning Tree 🗢	✓ LACP Information			
Multicast 🗢	Information Name		Information Value	
QoS 🗢	State		Disabled	
Security 🗢	System Priority		1	
Access Control List 🗢				
MAC Address lable				
Diagnostics 🗢				
RMON				
Maintenance 🗢				

**System Priority:** Configure the system priority of LACP. This decides the system priority field in LACP PDU.

### 4.3.5 LACP Port Setting

To display the LACP Port Setting page, click Link Aggregation > LACP Port Setting.

This page is used to determine LACP member ports.

SAVE   LOGOUT   REBOO	T	RESH					
System		LACP Port Setting					-
Port Management	~						
Link Aggregation	~	LACE Port Settings					
LAG Setting		Port Select	Priority	Timeout			
LAG Management			,				
LAG Port Setting		Select Ports	(1-65535)	Long O Short			
LACP Setting	_						
LACP Port Setting		Арріу					
EAG Status							
VLAN	~						
Spanning Tree	~	<ul> <li>LACP Port Information</li> </ul>					
Multicast	~	Port Name		Priority	Timeout		
QoS	~	GE1		1	Long		
Security	~	GE2		1	Long		
Access Control List	4	GE3		1	Long		
MAC Address Table	~	GE4		1	Long		
LLDP	~	GE5		1	Long		
Diagnostics	~	GE6		1	Long		
RMON	~	GE7		1	Long		
Maintenance	~	GE8		1	Long		
		GER		1	Long	_	
		0510		1	Long		
		GEIN			 Long		v

#### 4.3.6 LAG Status

To display the LAG Status page, click Link Aggregation > LAG Status.

This page displays trunk information such as trunk situation, functional ports and alternative ports.

System ▽ Port Management ▽	LAG St	atus				
Link Aggregation	▼ LAG Statu	s				
LAG Management	LAG	Name	Туре	Link State	Active Member	Standby Member
LAG Port Setting	LAG1			Not Present		
LACP Setting	LAG2			Not Present		•
LAG Status	LAG3			Not Present		
VIAN	LAG4			Not Present	-	
Spanning Tree V	LAG5			Not Present	-	-
Multicast X	LAG6			Not Present	-	
	LAG7			Not Present	•	-
Security X	LAG8			Not Present		
Access Control List						· · · · · · · · · · · · · · · · · · ·
MAC Address Table V						
		rmation				
Diagnostics V	· LACF IIITO	mation				
PMON						
RIION V						

LAG: LAG ID.

Name: LAG name.

**Type:** The type of the LAG group: a static LAG or an LACP LAG.

# **4.4 VLAN**

#### 4.4.1 Create VLAN

To display the Create VLAN page, click VLAN > Create VLAN.

This page allows you to add, delete or edit VLAN settings.

System 🗢	Create VLAN			
Port Management 🗢				
Link Aggregation 🗢	VI AN Cotting			
VLAN 🗢	VLAN Setting			
Create VI AN	VLAN LIST	VLAN Action VLAN Name Pretix		
Interface Settings		Add O Delete		
Port to VLAN				
Port VLAN Membership	Apply			
Protocol VLAN Group				
Protocol VLAN Port	✓ VLAN Table			
Setting				
Spanning Tree 🗢	FIRST PREV 1 NEXT	LAST		
Multicast 🗢	VLAN ID	VLAN Name	VLAN Type	Modify
QoS 🗢	1	Default	Default	Edit
Security V				
Access Control List				
MAC Address Table				
mac address rable 🗢				
Diagnostics 🗢				
RMON 🗢				
Maintenance 🗢				

VLAN LIST: VLAN list for the new VLAN.

VLAN Action: Add or delete VLAN.

VLAN Name Prefix: VLAN name prefix for the new VLAN.

#### 4.4.2 Interface Settings

To display the VLAN Interface Settings page, click VLAN > Interface Settings.

This page allows you to set the port type of a VLAN and manage various parameters.

SAVE   LOGOUT   REBO	DOT   REFR	ESH								
System Port Management	⊽	Interf	ace Set	tings						
Link Aggregation	~	Edit Interfe	an Sattir							
VLAN	~	Port S	elect	Interface VLAN Mode		PVID	Accepted Type	Ingress Filtering	Uplink	TPID
Create VLAN Interface Settings		Select Ports	¥	●Hybrid ○Access ○Trunk ○Tunnel	1 4094	) (1 -	● All ○ Tag Only ○ Untag Only	<ul> <li>Enabled</li> <li>Disabled</li> </ul>	<ul> <li>Enabled</li> <li>Disabled</li> </ul>	0x8100
Port to VLAN Port VLAN Members Protocol VLAN Grou Setting	ship up	Apply	]				*		•	
Protocol VLAN Port Setting		▼ Port VL#	N Status							
Spanning Tree	~	Port	Interfac	e VLAN Mode	PVID	Accept Fr	ame Type	Ingress Filtering	Uplink	TPID
lulticast	~	GE1	Trunk		1	ALL		Enabled	Disabled	0x8100
QoS	~	GE2	Trunk		1	ALL		Enabled	Disabled	0x8100
Security	~	GE3	Trunk		1	ALL		Enabled	Disabled	0x8100
Access Control List	~	GE4	Trunk		1	ALL		Enabled	Disabled	0x8100
MAC Address Table	~	GE5	Trunk		1	ALL		Enabled	Disabled	0x8100
LLDP	~	GE6	Trunk		1	ALL		Enabled	Disabled	0x8100
Diagnostics	~	GE7	Trunk		1	ALL		Enabled	Disabled	0x8100
RMON	~	GE8	Trunk		1	ALL		Enabled	Disabled	0x8100
laintenance	~	GE9	Trunk		1	ALL		Enabled	Disabled	0×8100
		GE10	Trunk		1	ALL		Enabled	Disabled	0x8100

Port Select: Select one or multiple ports to configure.

Interface VLAN Mode: VLAN port mode.

- ε Hybrid: Port hybrid model.
- ε Access: Port hybrid model.
- ε Trunk: Port hybrid model.
- ε Tunnel: Port hybrid model.

**PVID:** VLAN ID for the selected ports.

Accepted Type: Port accepted type.

- $\ell\,$  All: Accept tagged and untagged frames.
- e Tag Only: Only accept tagged frame.
- *e* Untag Only: Only accept untagged frame.

Ingress Filtering: Choose filter port open and close.

Uplink: Select port Uplink open or close.

### 4.4.3 Port to VLAN

To display the Port to VLAN page, click VLAN > Port to VLAN.

Add ports to a VLAN and select their parameters.

SAVE   LOGOUT   REBO	IOT   REF	RESH			
System	~	Port	to VLAN		
Port Management	~				
Link Aggregation	~				
VLAN	~	· Port to	VI AN Settings		
Create VI AN					^
Interface Settings		VLAN ID	: 1		
Port to VLAN					
Port VLAN Members	ship				
Protocol VLAN Grou Setting	ıp		1		
Protocol VLAN Port		Port	Interface VLAN Mode	Membership	PVID
Setting		GE1	Trunk	○ Forbidden ○ Excluded ○ Tagged ④ Untagged	
Spanning Tree	~	GE2	Trunk	○ Forbidden ○ Excluded ○ Tagged   Untagged	
Multicast	~	GE3	Trunk	○ Forbidden ○ Excluded ○ Tagged ④ Untagged	
QoS	~	GE4	Trunk	○ Forbidden ○ Excluded ○ Tagged ⑧ Untagged	
Security	~	GE5	Trunk	○ Forbidden ○ Excluded ○ Tagged ④ Untagged	
Access Control List	~	GE6	Trunk	○ Forbidden ○ Excluded ○ Tagged ⑧ Untagged	
MAC Address lable	4	GE7	Trunk	○ Forbidden ○ Excluded ○ Tagged   Untagged	
Diagnostics	•	GE8	Trunk	○ Forbidden ○ Excluded ○ Tagged ⑧ Untagged	
RMON	~	GE9	Trunk	○ Forbidden ○ Excluded ○ Tagged ● Untagged	
Maintenance	~	GE10	Trunk	○ Forbidden ○ Excluded ○ Tagged ⑧ Untagged	
		GE11	Trunk	○ Forbidden ○ Excluded ○ Tagged ④ Untagged	

# 4.4.4 Port VLAN Membership

To display the Port VLAN Membership page, click VLAN > Port VLAN Membership.

SAVE   LOGOUT   REBOOT   REFRESH						
System 🗢	Port VI	AN Member	hin			^
Port Management 🗢	- I OIL VE	An members				
Link Aggregation 🗢						
VLAN 🗢	• Port VLAN	Membership Ta	Die		^	
Create VLAN	Port	Mode	Administrative VLANs	Operational VLANs	Modify	
Interface Settings	GE1	Trunk	1UP	1UP	Edit	
Port VLAN Membership	GE2	Trunk	1UP	1UP	Edit	
Protocol VLAN Group Setting	GE3	Trunk	1UP	1UP	Edit	
Protocol VLAN Port	GE4	Trunk	1UP	1UP	Edit	
Setting	GE5	Trunk	1UP	1UP	Edit	
Spanning Tree 🗢	GE6	Trunk	1UP	1UP	Edit	
QoS -	GE7	Trunk	1UP	1UP	Edit	
Security 🗢	GE8	Trunk	1UP	1UP	Edit	
Access Control List 🗢	GE9	Trunk	1UP	1UP	Edit	
MAC Address Table 🗢	GE10	Trunk	1UP	1UP	Edit	
LLDP 🗢	GE11	Trunk	1UP	1UP	Edit	
Diagnostics 🗢	GE12	Trunk	1UP	1UP	Edit	
Maintenance V	GE13	Trunk	1UP	1UP	Edit	
	GE14	Trunk	1UP	1UP	Edit	
						~

## 4.4.5 Protocol VLAN Group Setting

To display the Protocol VLAN Group Setting page, click VLAN > Protocol VLAN Group Setting.

The VLAN group setting lets you send the same type of message to a group within a specific VLAN.

SAVE   LOGOUT   REBOOT   REF	RESH				
System 🗢	Protocol VLAN Group	Setting			
Port Management 🗢					
Link Aggregation 🗢	Add Protocol VLAN Group				
VLAN 🗢	Group ID (1-8)	05	1		
Create VLAN	Frame Type		Ethernet_II	~	
Port to VLAN	Protocol Value (0x0600	-0xFFFE)			
Port VLAN Membership Protocol VLAN Group Setting	Add				
Protocol VLAN Port Setting					
Spanning Tree 🗢 🗢	<ul> <li>Protocol VLAN Group State</li> </ul>				
Multicast 🗢	Group ID	Frame Type		Protocol Value	Delete
QoS 🗢					
Security 🗢					
Access Control List 🛛 🗢					
MAC Address Table 🛛 🗢					
LLDP 🗢					
Diagnostics 🗢 🗢					
RMON 🗢					
Maintenance 🗢					

Group ID (1-8): Enter an ID number of the group, between 1 and 8.

**Frame Type:** This function maps packets to protocol-defined VLANs by examining the type octet within the packet header to discover the type of protocol associated with it.

- $\ell$  Ethernet\_II: packet type is Ethernet version 2.
- $\ell$  IEEE802.3\_LLC\_Other: packet type is 802.3 packet with LLC other header.
- ℓ RFC\_1042: packet type is RFC 1042 packet.

Protocol Value (0x0600-0xFFFE): Enter the Ether type of the target protocol.

# 4.4.6 Protocol VLAN Port Setting

To display the Protocol VLAN Port Setting page, click **VLAN > Protocol VLAN Port** Setting.

This page is used to divide the ports into groups and map them to the VLAN.

SAVE   LOGOUT   REBOOT   REF	RESH				
System 🗢	Protocol VLA	N Port Setting			
Port Management 🗢					
Link Aggregation 🗢	Protocol VLAN Port	Setting			
VLAN 🗢	Port	Group	VLAN		
Create VLAN	Select Ports 🔹		© VLAN (D(1-40.94) 1		
Interface Settings			0121112(14004)		
Port to VLAN	Add				
Protocol VLAN Group Setting					
Protocol VLAN Port Setting		t State			
Spanning Tree 🗢	Port	Group ID	VL4	IN ID	Delete
Multicast 🗢					
QoS 🗢					
Security 🗢					
Access Control List 🗢 🗢					
MAC Address Table 🛛 🗢					
LLDP 🗢					
Diagnostics 🗢					
RMON 🗢					
Maintenance 🗢					

Port: Select the specified ports you wish to configure by selecting them in this list.

**Group:** Click the corresponding radio button to select a previously configured Group ID or Group Name.

**VLAN:** Click the corresponding radio button to select a previously configured VLAN ID or VLAN Name.

# 4.5 Spanning Tree

The Spanning Tree Protocol (STP) is a network protocol that ensures a loop-free topology for any bridged Ethernet local area network.

# 4.5.1 STP Global Setting

To display the STP Global Setting page, click **Spanning Tree > STP Global Setting.** 

SAVE   LOGOUT   REBOOT   REP	RESH	
System 🗢	STP Global Setting	· · · · · · · · · · · · · · · · · · ·
Port Management 🗢		
Link Aggregation 🗢	Global Setting	
VLAN <del>v</del>	Enabled	OEnabled   Disabled
Spanning Tree 🗢 🗢	BPDU Forward	Flooding      O Filtering
STP Global Setting STP Port Setting	PathCost Method	OShort @Long
CIST Instance Setting	Force Version	STP-Compatible
CIST Port Setting MST Instance Setting	Configuration Name	DE:AD:BE:EF:01:02 (Max.32 charactor)
MST Port Setting	Configuration Revision	0 (0 - 65535)
STP Statistics		
Multicast	Арріу	
Q05 <del>V</del>		
Security 🗢	<ul> <li>STP Information</li> </ul>	
Access Control List 🗢		
MAC Address Table 🗢	Information Name	Information value
LLDP 🗢	STP	Disabled
Diagnostics 🗢	BPDU Forward	Flooding
RMON 🗢	Cost Method	Long
Maintenance 🗢	Force Version	STP-Compatible
	Configuration Name	DE:AD:BE:EF:01:02
	Configuration Revision	0

**Enabled:** Set the STP status to be enabled/disabled on the switch. **BPDU Forward:** Choose BPDU packets is a flood or filtering.

Path Cost Method: Choose the path overhead is short or long.

Force Version: Select the operating mode of STP.

- e STP-Compatible: 802.1D STP operation.
- e RSTP-Operation: 802.1w operation.
- e MSTP-Operation: 802.1s operation.

**Configuration Revision:** Set the Revision of the Configuration Identification (range: 0-65535).

### 4.5.2 STP Port Setting

To display the STP Port Setting page, click **Spanning Tree > STP Port Setting.** 

SAVE   LOGOUT   REBOO	T   REFI	RESH		_	_		_				_	
System	~	STP PC	ort Set	ting								
Port Management	~			-								
Link Aggregation	~	STP Port Se	tting									
VLAN	~		g	External Path Co	st							
Spanning Tree	~	Port Sel	ect	(0 = Auto)	Edge Port	BPDU Filte	r BPDU Guard	P2P MAC	Migrate			
STP Global Setting		Select Ports	*	0	No 💌	No 🛩	No 💙	Yes 💙				
STP Port Setting			_									
CIST Instance Setting	0	Apply										
CIST Port Setting												
MST Dort Setting												
STP Statistics		• CIST Port	Status									
	_	Port	Admin	Enable	External Cost	Ed	ae Port	BPDU Filt	er	BPDU Guard	P2P MAC	-
Multicast	~	GE1	Enable		0	N		No		No	Yes	
QoS	~	GE2	Enable		0	N		No		No	Yas	
Security	~	052	Enable		0			No		Ne	Vee	
Access Control List	~	GES	Enable		0	INC		NO		IND	Tes	
MAC Address Table	~	GE4	Enable		0	No		No		No	Yes	
LLDP	~	GE5	Enable		0	No		No		No	Yes	
Diagnostics	-	GE6	Enable		0	No		No		No	Yes	
DNON	-	GE7	Enable		0	No		No		No	Yes	
RMON	~	GE8	Enable		0	No		No		No	Yes	
Maintenance	4	GE9	Enable		0	No		No		No	Yes	
		GE 10	Enable		0	N		No		No	Yes	
		0210								117		

**Port Select:** Select the port list to specify which ports should apply this setting. **External Path Cost:** Set the port's contribution. When it is the root port, the root path cost for the bridge. (0 means Auto).

Edge Port: Set the edge port configuration.

- $\ell\,$  No: Force to false state (as link to a bridge).
- e Yes: Force to true state (as link to a host).

**BPDU Filter:** Set the BPDU Filter configuration.

*e* No: Disable BPDU filter function.

e Yes: Enable BPDU filter function.

To avoid transmitting BPDU from the specified ports.

**BPDU Guard:** Set the BPDU Guard configuration.

- $\ell\,$  No: Disable BPDU guard function.
- $\ell\,$  Yes: Enable BPDU filter function.

To drop directly the received BPDU from the specified ports.

**P2P MAC:** Set the Point-to-Point port configuration.

- $\ell$  No: Force to false state.
- $\ell$  Yes: Force to true state.

**Migrate:** Forces the port to try to use the new MST/RST BPDUs, and hence to test the hypothesis that all legacy systems that do not understand the new BPDU formats have been removed from the LAN segment on the port(s).

# 4.5.3 CIST Instance Setting

To display the CIST Instance Setting page, click **Spanning Tree > CIST Instance Setting.** 

SAVE   LOGOUT   REBOOT   REFRESH									
System 🗢	CIST Instance Setting								
Port Management 🗢	CIST Instance Setting								
Link Aggregation 🗢									
VLAN 🗢	CIST Instance Setting								
Spanning Tree 🗢 🗢	Priority 32768								
STP Global Setting	Max Hops 20 (1-	0)							
STP Port Setting	Forward Delay 15 (4-	0)							
CIST Instance Setting	Max Age 20 (6-	0)							
CIST Port Setting		• <u>,</u>							
MST Instance Setting MST Port Setting	Tx Hold Count 6 (1-	0)							
STP Statistics	Hello Time 2 (1-	0)							
Multicast 🗢	Annie								
QoS 🗢	Apply								
Security 🗢									
Access Control List 🗢	<ul> <li>CIST Instance Information</li> </ul>								
MAC Address Table 🗢	Information Name	Information Value							
LLDP 🗢	Priority	32768							
Diagnostics 🗢	Max Hops	20							
RMON 🗢	Forward Delay	15							
Maintenance 🗢	Max Age	20							
	Tx Hold Count	6							
	Us Us Time								

Priority: Set the Bridge Priority in the specified CIST instance.

Max Hops: Set the value of the maximum number of hops in the region.

**Forward Delay:** Set the delay time an interface takes to converge from blocking state to forwarding state.

**Max Age:** Set the time any switch should wait before trying to change the STP topology after unhearing Hello BPDU.

**Tx Hold Count:** Set the Transmit Hold Count used to limit BPDIU transmission rate. **Hello Time:** Set the interval between periodic transmissions of BPDU by Designated Ports.

# 4.5.4 CIST Port Setting

To display the CIST Port Setting page, click **Spanning Tree > CIST Port Setting**.

ystem ort Management	⊽	CIST Port Setting											
ink Aggregation		CIST	Port Setting										
panning Tree	~		ort Select	Priority	Internal Pa (0 = A	ath Cost uto)							
STP Global Setting		Selec	t Ports 🔹	128 🛩	0								
STP Port Setting			- la										
CIST Port Setting	9	Ap	piy										
MST Instance Setting													
mor motance betting													
MST Port Setting		- CI	T Port Status										
MST Port Setting STP Statistics		+ ci	ST Port Status	-							Internal		
MST Port Setting STP Statistics	Þ	+ CI	T Port Status	External Path Cost	Internal Path Cost	Designated Root	External Root	Regional Root	Internal Root	Designate d	Internal Port	Edge Port	P2P MAC
MST Port Setting STP Statistics ulticast	0 0	→ CI	ort Port Status	External Path Cost Conf/Oper	Internal Path Cost Conf/Oper	Designated Root Bridge	External Root Cost	Regional Root Bridge	Internal Root Cost	Designate d Bridge	Internal Port Path Cost	Edge Port Conf/Oper	P2P MAC Conf/Oper
MST Port Setting STP Statistics ulticast oS ecurity ccess Control List	4 4	- CI	T Port Status Indentifier (Priority / Port ID) E1 128 / 1	External Path Cost Conf/Oper 0 / 20000	Internal Path Cost Conf/Oper 0 / 20000	Designated Root Bridge 0 / 00:00:00:00:00:00:00	External Root Cost	Regional Root Bridge 0 / 00:00:00:00:00:00:00	Internal Root Cost	Designated Bridge 0 / 00.00.00.00.00.00.00	Internal Port Path Cost 20000	Edge Port Conf/Oper No / No	P2P MAC Conf/Oper Auto / No
MST Port Setting STP Statistics lulticast o S ecurity ccess Control List IAC Address Table	4 4 4	CI	T Port Status Indentifier (Priority / Port ID) E1 128 / 1 E2 128 / 2	External Path Cost Conf/Oper 0 / 20000 0 / 20000	Internal Path Cost Conf/Oper 0 / 20000 0 / 20000	Designated Root Bridge 0 / 00:00:00:00:00:00 0 /	External Root Cost 0	Regional Root Bridge 0 / 00:00:00:00:00:00 0 /	Internal Root Cost 0	Designate d Bridge 0 / 00:00:00:00:00:00 0 /	Internal Port Path Cost 20000	Edge Port Conf/Oper No / No No / No	P2P MAC Conf/Oper Auto / No Auto / No
MST Port Setting STP Statistics ulticast oS ecurity ccess Control List AC Address Table LDP	4 4 4 4	CI P G	or Port Status Indentifier (Priority / Port ID) E1 128 / 1 E2 128 / 2	External Path Cost Conf/Oper 0 / 20000 0 / 20000	Internal Path Cost Conf/Oper 0 / 20000 0 / 20000	Designated Root Bridge 0 / 00:00:00:00:00:00:00 0 / 00:00:00:00:00:00	External Root Cost 0	Regional Root Bridge 0 / 00:00:00:00:00:00:00 0 / 00:00:00:00:00:00:00	Internal Root Cost 0	Designate d Bridge 0 / 00:00:00:00:00:00:00 0 / 00:00:00:00:00:00:00	Internal Port Path Cost 20000 20000	Edge Port Conf/Oper No / No No / No	P2P MAC Conf/Oper Auto / No Auto / No
MST Port Setting STP Statistics ulticast oS ecurity AC Address Table _DP agnostics	4 4 4 4 4	P G G	Indentifier (Priority / Port ID)           E1         128 / 1           E2         128 / 2           E3         128 / 3	External Path Cost Conf/Oper 0 / 20000 0 / 20000 0 / 20000	Internal Path Cost Conf/Oper 0 / 20000 0 / 20000 0 / 20000	Designated Root Bridge 0 / 00.00.00.00.00.00 0 / 00.00.00.00.00.00 0 / 00.00.00.00.00.00	External Root Cost 0 0 0	Regional Root Bridge 0 / 0 0 00 00 00 00 00 00 0 / 0 00 00 00 00 00 00 0 / 0 0 00 00 00 00 00 00	Internal Root Cost 0 0 0	Designate d Bridge 0 / 00.00.00.00.00.00 0 / 00.00.00.00.00.00 0 / 00.00.00.00.00.00	Internal Port Path Cost 20000 20000	Edge Port Conf/Oper No / No No / No No / No	P2P MAC Conf/Oper Auto / No Auto / No Auto / Yes
MST Port Setting STP Statistics ulticest os curity coss Control List AC Address Table DP agnostics ION intenance	4     4     4     4     4	- CI	Indentifier (Priority / Port ID)           E1         128 / 1           E2         128 / 2           E3         128 / 3	External Path Cost Conf/Oper 0 / 20000 0 / 20000 0 / 20000 0 / 20000	Internal Path Cost Conf/Oper 0 / 20000 0 / 20000 0 / 20000 0 / 20000	Designate d Root Bridge 0 / 00 00 00:00 00 00 0 / 00 00 00:00 00 00 0 / 00 00 00 00 00 00 0 /	External Root Cost 0 0 0	Regional Root           Bridge           0 /           0 0.00           0 0.00           0 0.00           0 0.00           0 0.00           0 0.00           0 0.00           0 0.00           0 0.00           0 0.00           0 0.00           0 0.00           0 0.00           0 0.00	Internal Root Cost 0 0 0	Designated Bridge 0 / 00 00 00 00 00 00 00 0 / 00 00 00 00 00 00 0 / 00 00 00 00 00 00 0 /	Internal Port Path Cost 20000 20000 20000	Edge Port Conf/Oper No / No No / No No / No No / No	P2P MAC Conf/Oper Auto / No Auto / No Auto / Yes Auto / No

Port Select : Select the port list to specify which ports should apply this setting.
Priority: Set the Port Priority to the selected ports in the specified CIST instance.
Internal Path Cost: Set the Internal Path Cost to the selected ports in the specified CIST instance. (0 means Auto)

# 4.5.5 MST Instance Setting

To display the MST Instance Setting page, click **Spanning Tree > MST Instance Setting.** 

SAVE   LOGOUT   REBOO	DT   REFR	ESH						
System Port Management	⊽	MST Instanc	e Setting					^
Link Aggregation	~	MST Instance Setti	ing		_			
Spanning Tree	⊽	M STI ID (1-15)	VLAN List (1-4094)	Priority				
STP Global Setting STP Port Setting CIST Instance Settin CIST Port Setting	g	Apply		32768	1			
MST Instance Settin MST Port Setting	g	➡ MST Instance Set	tting Information					
STP Statistics		MSTI	Status	VLAN List		VLAN Count	Priority	
Multicast	▽							~
QoS	~	<u>&lt;</u>						>
Security Access Control List	⊽ ⊽	→ MST Instance Sta	itus					
MAC Address Table	~	Information Nam	e		Information Va	lue		
LLDP	~	M STI ID			1			
Diagnostics	~	Regional Root B	ridge		/			
RMON	~	Internal Root Co	st		/			
Maintenance	~	Designated Bridg	ge		/			
		Root Port			/			
		Max Age			./			~

MSTI ID: Set the MSTI ID to specified the MST instance.

VLAN List: Set the VLAN List.

**Priority:** Set the Bridge Priority in the specified MST instance.
# 4.5.6 MST Port Setting

To display the MST Port Setting page	click Spanning Tree > MST Port Setting.

System 🗢
Port Management 🛛 🗢
Link Aggregation 🗢
VLAN 🗢
Spanning Tree 🗢 🗢
STR Global Satting
STP Port Setting
CIST Instance Setting
CIST Port Setting
MST Instance Setting
MST Port Setting
STP Statistics
lulticast 🗢
20 S 🗢
iecurity 🗢
ccess Control List 🛛 😎
IAC Address Table 🗢
LDP 🗢
Diagnostics 🗢
RMON 🗢
MON ▽
MON 🗢 aintenance 🗢

MST ID: Set the MSTI ID to specify MST instance.

Port Select : Select the port list to specify which ports should apply this setting.
Priority: Set the Port Priority to the selected ports in the specified MST instance.
Internal Path Cost: Set the Internal Path Cost to the selected ports in the specified MST instance. (0 means Auto)

# 4.5.7 STP Statistics

To display the STP Statistics page, click **Spanning Tree > STP Statistics.** 

This page displays each type of receiving and sending BPDUs.

SAVE   LOGOUT   REBOOT	r   REF	RESH							
System	⊽	STP St	atistics						
Port Management	~								
Link Aggregation	~								
VLAN	~	<ul> <li>STP Statist</li> </ul>	tics						
Spanning Tree	~	Port	Configuration BDPUs Received	TCN BDPUs Received	MSTP BDPUs Received	Configuration BDPUs Transmitted	TCN BDPUs Transmitted	MSTP BDPUs Transmitted	
STP Global Setting STP Port Setting		GE1	0	0	0	0	0	0	
CIST Instance Setting		GE2	0	0	0	0	0	0	
CIST Port Setting		GE3	0	0	0	0	0	0	
MST Instance Setting		GE4	0	0	0	0	0	0	
STP Statistics		GE5	0	0	0	0	0	0	
	_	GE6	0	0	0	0	0	0	
Multicast	~	GE7	0	0	0	0	0	0	
QoS	~	GE8	0	0	0	0	0	0	
Security	~	GE9	0	0	0	0	0	0	
Access Control List		GE10	0	0	0	0	0	0	
MAC Address Table	~	GE11	0	0	0	0	0	0	
LLDP	~	GE12	0	0	0	0	0	0	
Diagnostics	~	GE13	0	0	0	0	0	0	
RMON	~	GE14	0	0	0	0	0	0	
Maintenance	▽	GE15	0	0	0	0	0	0	
		GE16	0	0	0	0	0	0	
									-

# 4.6 Multicast

## 4.6.1 Properties

To display the Properties page, click **Multicast > Properties.** 

The Properties page enables you to configure the Bridge Multicast filtering status. It contains L2 or IP Unknown Multicast Action and ipv4 Forward Method.

SAVE   LOGOUT   REBOOT   R	EFRESH		
System 🗢 Port Management 🗢	Properties		
Link Aggregation 🗢	Properties Setting		
VLAN U	L2 Unknown Multicast Action	O Drop @ Flood	
Spanning free Multicast	IP Unknown Multicast Action	○ Drop   ● Flood   ○ Router Port	
Multicast	IPv4 Forward Method	MAC   Src-Dst-Ip	_
IGMP Snooping IGMP Snooping Statistics Multicast Throttling Setting Multicast Filter	Apply • Properties Information		_
QoS 🗸	Information Name	In	ormation Value
Security 🗢	L2 Unknown Multicast Action	FI	lod
Access Control List 🗢	IP Unknown Multicast Action	Fi	od
MAC Address Table 🤝	Forwarding Method For IPv4	M	IC
LLDP 🔻			
Diagnostics 🗸			
RMON			
Maintenance 🗢			

# 4.6.2 IGMP Snooping

#### 4.6.2.1 IGMP Setting

To display the Properties page, click **Multicast > IGMP Snooping > IGMP Setting.** 

SAVE   LOGOUT   REBOOT   REFR	ESH					
System 🗢 ^	IGMP Snooping					
Port Management 🗢						
Link Aggregation 🗢	IGMP Snooping					
VLAN 👻	IGMP Snooping Status					
Spanning Tree 🗢	IGMP Snooping Version					
Multicast 🗢						
Properties	GMP shooping Report suppression @Enable Obisable					
IGMP Snooping D	Apply					
IGMP Setting						
IGMP Querier Setting						
IGMP Static Group	<ul> <li>IGMP Snooping Information</li> </ul>					
IGMP Router Setting	Information Name	Information Value				
IGMP Router Table	IGMP Speeping Status	Enable				
IGMP Forward All	Iome shooping status					
IGMP Spooping Statistics	IGMP Snooping Version	VZ				
Multicast Throttling	IGMP Snooping V2 Report Suppression	Enable				
Setting						
Multicast Filter D						
QoS 🗢	- ICHP Secondar Table					
Security 🗢	· IGMI Shooping rame					
Access Control List 🛛 🗢	Entry MIAN IGMP Snooping Router Query Query Max	Last Last Member				
MAC Address Table 🗢	No. ID Status Learn Robustness (see ) Interval Response	Member Query Interval Leave Modify				
· · · · · · · · · · · · · · · · · · ·		aucij count (acc)				

IGMP Snooping Status: Enable or disable.

**IGMP Snooping Version:** Select the IGMP Snooping Version, IGMPv2 or IGMPv3. **IGMP Snooping Report Suppression:** Enable or disable.

## 4.6.2.2 IGMP Querier Setting

To display the IGMP Querier Setting page, click **Multicast > IGMP Snooping > IGMP Querier Setting.** 

SAVE   LOGOUT   REBOOT   REFR	ESH				
System 🗢 ^	IGMP Sno	oping Querier Setting			
Link Aggregation 🗢	IGMP Querier Se	tting			
Spanning Tree	VLAN ID	Select VLANs 👻			
Multicast 🗢	Querier State	◉Disable ○Enable			
Properties	Querier Version	®v2 ○v3			
IGMP Snooping ♪	Apply				
IGMP Setting					
IGMP Static Group	→ IGMP Querier	Status			
IGMP Router Setting	VLAN ID	Querier State	Querier Status	Querier Version	Querier IP
IGMP Router Table IGMP Forward All	1	Disabled	Non-Querier		
IGMP Snooping Statistics Multicast Throttling Setting Multicast Filter b					
QoS ▽					
Security -					
MAC Address Table					

VLAN ID: Select the VLANs to configure.

Querier State: Set the enabling status of IGMP Querier Election on the chosen VLANs.

- $\ell\,$  Enable: Enable IGMP Querier Election.
- ε Disable: Disable IGMP Querier Election.

Version: Select the Querier Version, IGMPv2 or IGMPv3.

#### 4.6.2.3 IGMP Static Group

To display the IGMP Static Setting page, click **Multicast > IGMP Snooping > IGMP Static Group.** 

This page is used to configure specified ports as static member ports.

SAVE   LOGOUT   REBOUT   REFRE	-SH			
System 🤝 ^	IGMP Static	Group		
Port Management 🗢				
Link Aggregation 🗢	Add IGMP Static Gr	oup		
VLAN 🗢	VLAN ID	Select VI ANs		
Spanning Tree 🛛 🗢	TEANTE			
Multicast 🗢	Group IP Address			
Properties	Member Ports	Select Ports 👻		
IGMP Snooping D				
IGMP Setting	Add			
IGMP Querier Setting 😑				
IGMP Static Group				
IGMP Group Table	* IGMP Static Group	05		
IGMP Router Setting	10.411.0	0.000		10.000
IGMP Router Table	VLAN ID	Group IP Address	Member Ports	Modify
IGMP Forward All				
IGMP Snooping Statistics				
Multicast Throttling Setting				
Multicast Filter Þ				
QoS 🗢				
Security 🗢				
Access Control List 🛛 🗢				
MAC Address Table 🛛 🗢				

## 4.6.2.4 IGMP Group Table

To display the IGMP Group Table page, click **Multicast > IGMP Snooping > IGMP Group Table.** 

This page is used to display IGMP Group Table statistics information.

SAVE   LOGOUT   REBO	DT   REI	FRESH				
Syste m	~	IGMP Gr	oun Table			
Port Management	~					
Link Aggregation	~					
VLAN	~	▼ IGMP Group	Table			
Spanning Tree	~	VLAN ID	Group IP Address	Member Ports	Туре	Life(Sec)
Multicast	▽			1		
Properties IGMP Snooping IGMP Setting	Þ					
IGMP Querier Set	ting p					
IGMP Group Table	ina					
IGMP Router Tabl	e					
IGMP Forward All						
IGMP Snooping Stat	istics					
Multicast Throttling Setting						
Multicast Filter	Þ					
QoS	~					
Security	~					
Access Control List	~					
MAC Address Table	~					
		~				

## 4.6.2.5 IGMP Router Setting

To display the IGMP Router Port Setting page, click **Multicast > IGMP Snooping > IGMP Router Setting.** 

This page is used to configure specified ports as static route ports.

SAVE   LOGOUT   REBOOT   REF	RESH			
System	IGMP Router	Port Setting		
Link Aggregation				
	Add Router Port			
VLAN <del>V</del>	VLAN ID	Select VLANs 👻		
Spanning Tree 🗢				
Multicast 🗢	Туре	● Static ○ Forbid		
Properties	Static Ports Select	Select Static Ports 👻		
IGMP Snooping		Colore Dashid Dash		
IGMP Setting	Forbid Ports Select	Selectional ords		
IGMP Querier Setting				
IGMP Static Group	Add			
IGMP Group Table				
IGMP Router Setting				
IGMP Router Table				
IGMP Forward All	VLAN ID	Static Ports	Forbidden Ports	Modify
IGMP Snooping Statistics				
Multicast Throttling				
Setting Multiseet Filter				
Multicast Filter D				
QoS 🗢				
Security 🗢				
Access Control List 🛛 🗢				
MAC Address Table 🗢				
1100 -	~			

### 4.6.2.6 IGMP Router Table

To display IGMP Router Table web page, click **Multicast > IGMP Snooping > IGMP Router Table** 

This page is used to display IGMP Router Table statistics information.

SAVE   LOGOUT   REBOOT   RE	FRESH				
System 🗢	^	IGMP Router Tabl	le		
Port Management 🗢					
Link Aggregation 🗢		Danie Danie Table			
VLAN 🗢		Dynamic Kouter Table			
Spanning Tree 🛛 🗢		VLAN ID		Port	Expiry Time (Sec)
Multicast 🗢					
Properties					
IGMP Snooping		Carrie Danser Table			
IGMP Setting		Static Router Table			
IGMP Querier Setting		VLAN ID		PortMask	
IGMP Static Group					
IGMP Group Table					
IGMP Router Table					
IGMP Forward All		Forbbiden Kouter Tabl	e		
IGMP Snooping Statistics		VLAN ID		PortMask	
Multicast Throttling Setting					
Multicast Filter b					
Qo S 🗢					
Security 🗢					
Access Control List 🛛 🗢					
MAC Address Table 🛛 🗢					
	~				

## 4.6.2.7 IGMP Forward All

To display IGMP Forward All web page, click **Multicast > IGMP Snooping > IGMP** Forward All

SAVE   LOGOUT   REBOOT   REFRE	SH		_
System 🤝 🔶	IGMP Forward	All	1
Port Management 🗢	ieini reinara.		
Link Aggregation 🗢			
VLAN 🗢	* Forward All		
Spanning Tree 🗢	Torward An		^
Multicast 🗢	VLAN ID : 1	v	
Properties	Port	Membership	
IGMP Snooping D	GE1	○ Static ○ Forbidden ⊛ None	
IGMP Setting	GE2	🔿 Static 🔿 Forbidden 🖲 None	
IGMP Querier Setting	GE3	🔿 Static 🔿 Forbidden 🖲 None	
IGMP Static Group IGMP Group Table	GE4	🔿 Static 🔿 Forbidden 🖲 None	
IGMP Router Setting	GE5	○ Static ○ Forbidden ④ None	
IGMP Router Table	GE6	○ Static ○ Forbidden ⑧ None	
IGMP Snooping Statistics	GE7	○ Static ○ Forbidden ® None	
Multicast Throttling	GE8	○ Static ○ Forbidden @ None	
Setting Multicast Filter D	GE9	○ Static ○ Forbidden ④ None	
0.05	GE10	○ Static ○ Forbidden ④ None	
Security -	GE11	🔿 Static 🔿 Forbidden 🖲 None	
Access Control List 🗢	GE12	○ Static ○ Forbidden	
MAC Address Table 🗢	GE13	○ Static ○ Forbidden ④ None	
	GE14	O Static O Forbidden @ None	`

# 4.6.3 IGMP Snooping Statistics

To display the IGMP Snooping Statistics page, click **Multicast > IGMP Snooping Statistics.** 

This page is used to display IGMP Snooping statistics information.

SAVE   LOGOUT   REBO	ot   Refre	ESH		-	
Syste m	~	IGMP Snooping Statistics			
Port Management	~				
Link Aggregation	~				
VLAN	~				
Spanning Tree Multicast	⊽	Clear Refresh		^	
Properties		Statistics Packets	Counter		
IGMP Snooping	Þ	Total RX	18		
IGMP Snooping Stat	istics	Valid RX	18		
Setting		Invalid RX	0		
Multicast Filter	Þ	Other RX	0		
QoS	▽	Leave RX	0		
Security	~	Report RX	0		
Access Control List	~	General Query RX	0		
MAC Address Table	~	Specail Group Query RX	0		
LLDP	4	Specail Group & Source Query RX	0		
Diagnostics	~	Leave TX	0		
RMON	~	Report TX	0		
Maintenance	~	General Query TX	0		
		Specail Group Query TX	0		
		Specail Group & Source Query TX	0		

# 4.6.4 Multicast Throttling Setting

To display the Multicast Throttling Setting page, click **Multicast > Multicast Throttling Setting.** 

This page allows you to set Multicast Port Max-Groups to limit a port's bandwidth and to select Multicast Action.

SAVE   LOGOUT   REBOOT	REF	RESH					
System	▽	Multicas	t Port Max-Group	s			^
Port Management	~		•				
Link Aggregation	~	Max Groups a	nd Action Setting				
VLAN	~	IP Type	Port Select	Max Groups	Action		
Spanning Tree	~	in type	Calant Parts				
Multicast	▽	IPv4 💌	Select Ports +	256 (0-256)	Deny O Replace		
Properties IGMP Snooping IGMP Snooping Statist	⊳ tics	Apply					
Multicast Throttling Setting		▼ IGMP Port N	lax Groups Informatio	n			
Multicast Filter	Þ	Port	1	Max Groups		Action	
QoS	▽	GE1	2	256		Deny	
Security	~	GE2	2	256		Deny	
Access Control List	~	GE3	2	256		Deny	
MAC Address Table	~	GE4	2	256		Deny	
LLDP	~	GE5	2	256		Deny	
Diagnostics	▽	GE6	2	256		Deny	1
RMON	~	GE7	2	256		Deny	
Maintenance	~	GE8	2	256		Deny	
		GE9	2	256		Deny	
		GE10	2	256		Deny	
		GE11	2	256		Deny	~

## 4.6.5 Multicast Filter

#### 4.6.5.1 Multicast Profile Setting

The Multicast Filter Profile Settings page allows you to add a profile to which multicast address(es) reports are to be received on specified ports on the switch. This function will therefore limit the number of reports received and the number of multicast groups configured on the switch. You may set an IP Multicast address or a range of IP Multicast addresses to accept reports (Permit) that come into the specified switch ports.

To display the Multicast Profile Setting page, click **Multicast > Multicast Filter > Multicast Profile Setting**.

SAVE   LOGOUT   REBOO	T   REFRES	н					
Syste m	▽ ^	Multic	ast Profile Set	ting			
Port Management	~						
Link Aggregation	~	Add Profile					
VLAN	~	Additionic	10 7	ID (			
Spanning Tree	~		тр туре	1944		_	
Multicast	~		Profile Index	1 (1-128)			
Properties			Group From				
IGMP Snooping	Þ		Group To				
IGMP Snooping Stati	stics		A			-	
Multicast Throttling Setting			Action	Permit O Deny			
Multicast Filter	b _	Add					
Multicast Profile Setting							
IGMP Filter Setting	3	▼ IGMP Pro	file Status				
Qo S	▽	Index	ІР Туре	Group From	Group To	Action	Modify
Security	~						
Access Control List	~						
MAC Address Table	~						
LLDP							
Diagnostics							
DMON	_						
Rmon							
Maintenance	~ ~						

# 4.6.5.2 IGMP Filter Setting

To display the IGMP Filter Setting page, click **Multicast > Multicast Filter > IGMP Filter Setting.** 

This page is used to set filters on a port.

SAVE   LOGOUT   REBOOT   REFR	ESH
System ▽ Port Management ▽	IGMP Snooping Filter Setting
Link Aggregation 🗢	Filter Setting
VLAN 🗢	Port Select Filter Profile ID
Spanning Tree 🛛 🗢	Salart Partre *
Multicast 🗢	Jeeu orb
Properties IGMP Snooping ♪ IGMP Snooping Statistics	Apply
Multicast Throttling Setting	* Port Filter Status
Multicast Filter 🛛 👌	Port Filter Profile ID Action
Multicast Filter b Multicast Profile Setting IGMP Filter Setting	Port Filter Profile ID Action
Multicast Filter Multicast Profile Setting IGMP Filter Setting QoS V	Port Filter Profile ID Action
Multicast Filter  Multicast Profile Setting GMP Filter Setting QoS  Security	Port Filter Profile ID Action
Multicast Filter     b       Multicast Profile     Setting       IGMP Filter Setting     IGMP ⊽       QoS     ♥       Security     ♥       Access Control List     ♥	Port Filter Profile ID Action
Multicast Filter     b       Multicast Profile     setting       IGMP Filter Setting     IGMP v       QoS     ♥       Security     ♥       Access Control List     ♥       MAC Address Table     ♥	Port Filter Profile ID Action
Multicast Filter     b       Multicast Profile Setting     b       IGMP Filter Setting     c       QoS     ♥       Security     ♥       Access Control List     ♥       MAC Address Table     ♥       LLDP     ♥	Port Filter Profile ID Action
Multicast Filter     b       Multicast Profile     setting       IGMP Filter Setting     v       QoS     v       Security     v       Access Control List     v       MAC Address Table     v       LLDP     v       Diagnostics     v	Port Filter Profile ID Action
Multicast Filter     b       Multicast Profile Setting     c       IGMP Filter Setting     c       QoS     c       Security     c       Access Control List     c       LLDP     c       Diagnostics     c       RMON     c	Port Filter Profile ID Action

# 4.7 QoS

Use the QoS pages to configure settings for the switch QoS interface and how the switch connects to a remote server to get services.

# 4.7.1 General

## 4.7.1.1 QoS Properties

To display the QoS properties page, click **QoS > General > QoS properties.** 

This page allows you to set the QoS mode: basic or advanced.

SAVE   LOGOUT   REBOOT	FRESH
System Port Management	QoS Global Setting
Link Aggregation	QoS Global Setting
VLAN Spanning Tree	QoS Mode
Multicast	Apply
QoS	
General	▼ QoS Information
QoS Properties Port Settings	Information Name Information Value
Queue Settings CoS Mapping	QoS Mode Disable
DSCP Mapping	
QoS Basic Mode	
QoS Advanced Mode	
Security	
Access Control List	
MAC Address Table	
Diagnostics	
RMON	v l

## 4.7.1.2 Port Settings

To display the Port Settings page, click **QoS > General > Port Settings**.

This page is used to configure various QoS parameters.

SAVE   LOGOUT   REBOOT	REFRESH							
Syste m	∀ ^	QoS Port Se	ttings					
Port Management	▼ -		5					
Link Aggregation	▽ (	QoS Port Settings						
VLAN	-	Port	CoS Value	Remark CoS	Remark DSCP	Remark IP Precedent	ce	
Spanning Tree	▽ -	Select Ports						
Multicast	~	Selections		Jisable ()Enable	Olsable OEnable	Olisable O Enable		
QoS	▽ [	Apply						
General	D							
QoS Properties		▼ OoS Port Status						
Port Settings		Quo i un una una una una una una una una una						~
Queue Settings		Port CoS	Value	Remark CoS	Remark	DSCP F	Remark IP Precedence	
DSCP Mapping		GE1 0		Disabled	Disabled	C	Disabled	
IP Precedence Mappi	ng	GE2 0		Disabled	Disabled	C	Disabled	
QoS Basic Mode	Þ	GE3 0		Disabled	Disabled	C	Disabled	
QoS Advanced Mode	D	GE4 0		Disabled	Disabled	C	Disabled	
Rate Limit	Þ	GE5 0		Disabled	Disabled	C	Disabled	
Security	▽	GE6 0		Disabled	Disabled	C	Disabled	
Access Control List	~	GE7 0		Disabled	Disabled	C	Disabled	
MAC Address Table	~	GE8 0		Disabled	Disabled	C	Disabled	
LLDP		GE9 0		Disabled	Disabled	C	Disabled	
Diagnostics		GE10 0		Disabled	Disabled	C	Disabled	
RMON	~ ~	GE11 0		Disabled	Disabled	0	Disabled	

## 4.7.1.3 Queue Settings

To display the Queue Setting page, click **QoS > General > Queue Settings.** 

This page allows you to set the QoS queue scheduling methods.

SAVE   LOGOUT   REBOOT	REFRE	ESH				
Syste m	~ ^	Q	ueue Settina	s		
Port Management	~			-		
Link Aggregation	~	Queue	Table			
VLAN	~	Queue		Sch	edulina M	lethod
Spanning Tree	~	Queue	Strict Priority	WRR	Weight	% of WRR Bandwidth
Multicast	▽	1	۲	0	1	
QoS	V	-	0	0		
General	D	2	۲	0	2	
QoS Properties		3	۲	0	3	
Port Settings		4	۲	0	4	
Queue Settings	-	5		0	5	
CoS Mapping		-		0		
IP Precedence Map	oing	6	۲	0	9	
QoS Basic Mode	Þ	7	۲	0	13	
QoS Advanced Mode	D	8	۲	0	15	
Rate Limit	Þ					
Security		Арр	ly			
Access Control List	~					
MAC Address Table	~	🝷 Que	ue Information			
LLDP	~					
Diagnostics	~	Inf	ormation Name			
RMON	~ ~	Stri	ict Priority Queue	Numbe	er	

## 4.7.1.4 COS Mapping

To display the COS Mapping page, click **QoS > General > COS Mapping.** 

The page allows you to apply COS Mapping.

SAVE   LOGOUT   REBOOT	REFRESI	t):																					
Syste m		CoS Mappi	na																				^
Port Management	~																						
Link Aggregation	▽	CoS to Queue Ma	appind																				
VLAN	~	Class of Service	0	,	1		-	2		3		4		5			6		7				
Spanning Tree	▽	Queue	2	v	1	v	3	-	4	- -	5		1	-	v	7	-			~			
Multicast	~	queue	2				5		-		5						_		_				
QoS	~	Queue to CoS Ma	pping																				
General	D	Queue	1		2		?	3		4		5		6	(		7		8				
QoS Properties		Class of Service	1	~	0	~	2	*	3	*	4	~		5	~	6	ŀ	- 7		~			
Port Settings											-						_						
Queue Settings		Apply																					
CoS Mapping																							
DSCP Mapping																						_	
IP Precedence Mappi	ng	<ul> <li>CoS Mapping</li> </ul>																					
QoS Basic Mode	Þ	0-0			11			0			_		_		_	_	_	_		_		^	
QoS Advanced Mode	D	LOS			ma	pping	J to (	Queue															
Rate Limit	Þ	0			2																		
Security	~	1			1																		
Access Control List	_	2			3																		
Access Control List	<u> </u>	3			4																		
MAC Address Table	~	4			5																 		
LLDP	~				-																 		
Diagnostics	~	5			6																 		
RMON	~ ~	6			7																		*

## 4.7.1.5 DSCP Mapping

To display the DSCP Mapping page, click **QoS > General > DSCP Mapping.** 

The page allows you to set DSCP Mapping.

SAVE   LOGOUT   REBOOT	REFRE	SH	-																
Syste m	. ∼	DS	CP M	lappin	a														
Port Management	▽				5														
Link Aggregation	~	DSCP	0.00	ue Mar	ning														
VLAN	~	DUCFIL	DSCP	ue wap	Que	e													
Spanning Tree	~	Salact D	SCP																
Multicast	~	select	ISCF		1	×													
QoS	~	Queue t	o DSC	CP Map	ping														
General	D	Queue	1		2		3		4		5			6		7		8	
QoS Properties Port Settings		DSCP	0	<b>v</b> 8	×	16	~	24	~	32		~	40	~	48	~	5	56	~
Queue Settings CoS Mapping		Appl	y																
IP Precedence Mapp	oing	→ DSCF	° Mapp	oing															
QoS Basic Mode	D	DSC	P				1	Ларрі	na to	Queu	le								
Rate Limit	Þ	0					1												
Security	_	1				-	1			-	-	-	-	-	-		-	-	-
Access Control List		2					1										_		
MAC Address Table	<u> </u>	3				_	1			_	_	_	_	_	_		_	_	-
MAC AUGIESS TADIE		4																	
Disconcention	Ě	5					1					_							-
RMON		6					1	1									-		-

## 4.7.1.6 IP Precedence Mapping

To display the IP Precedence Mapping page, click **QoS > General > IP Precedence Mapping.** 

The page allows you to set IP Precedence Mapping.

SAVE   LOGOUT   REBOOT	REF	RESH												
Syste m	~	IP Prece	edence M	apping										
Port Management	~													
Link Aggregation	~	IP Precedence	e to Queue	Manning										
VLAN	~	IP Precedence		1	2	3		4	5	6	7			
Spanning Tree	~	0		2 4	2 4				6	7				
Multicast	~	Queue	1	2	3	4	5	×	0					
Qo S	~	Queue to IP P	recedence	Mapping										
General	D	Queue	1	2	3	4		5	6	7	8			
QoS Properties		IP Precedence	e 0 ~	1 🗸	2 🗸	3	<b>~</b> 4	~	5	6	7	-		
Port Settings						al		-						
Queue Settings		Apply												
CoS Mapping														
DSCP Mapping	ning	= 10 Percenter												
in Trecedence map	ping	- In Freceder	псе марріпі	y										
QoS Basic Mode	D D	IP Precede	ence					Марр	ing to Que	eue				
Rate Limit	Þ	0						1						
e 1.		1						2						
Security	~	2						3					 	
Access Control List	~	3						4					 	
MAC Address Table	~	4						5					 	
LLDP	~	5						6					 	
Diagnostics	~	6						7					 	
RMON		· · · · ·												

## 4.7.2 QoS Basic Mode

## 4.7.2.1 Global Settings

To display the Global Settings page, click **QoS > QoS Basic Mode > Global Settings.** 

This page allows you to set the QoS for trust mode on basic mode global settings.

SAVE   LOGOUT   REBOOT	REFRES	н		_	_	
System Port Management	▽	Global Se	ttings			
Link Aggregation		Basic Mode Glo	bal Settings			
VLAN Spanning Tree	<b>▽</b>	Trust Mode	© CoS/802.1p ○ DSCP ○ CoS/802.1p-DSCF	P OIP Precedence (	ONone	
Multicast QoS	4	Apply				
General QoS Basic Mode	D D	▼ QoS Informat	ion			
Global Settings		Information I	Name		Information Value	
QoS Advanced Mode Rate Limit	Þ	Trust Mode			CoS	
Security						
Access Control List	~					
MAC Address Table	~					
LLDP	▽					
Diagnostics	▽					
Maintenance	4					

## 4.7.2.2 Port Settings

To display the Port Settings page, click **QoS > QoS Basic Mode > Port Settings.** 

This page allows you to revise QoS Port Setting selections.

SAVE   LOGOUT   REBOOT	r   REF	RESH			
Syste m	4	QoS Port Set	tina		^
Port Management	~				
Link Aggregation	~	OoS Port Setting			
VLAN	~	Rort Rort	Truet		
Spanning Tree	~				
Multicast	~	Select Ports	Enabled ODisabled		
QoS	~	Apply			
General	D	Арриу			
QoS Basic Mode	Þ				
Global Settings					
Port Settings		Port		Trust Type	<b>^</b>
QoS Advanced Mode	Þ	GE1		Enabled	
Rate Limit	Þ	GE2		Enabled	
Security	~	GE2		Enabled	
Access Control List	~	GE4		Enabled	
MAC Address Table	~	GE5		Enabled	
LIDP	~	GES		English	
Diagnostics		CE7			
PMON	-	GE/			
Kiiton		GE8			
Maintenance		GE9		Enabled	

# 4.7.3 QoS Advanced Mode

## 4.7.3.1 Global Settings

To display the Global Settings page, click **QoS > QoS Advanced Mode > Global Settings.** 

This page allows you to set the default QoS mode state under advanced mode global settings trust mode.

SAVE   LOGOUT   REBOOT   REFRESH				
System 🤝 🐴	Global Settings			
Port Management 🗢 📃				
Link Aggregation 🗢 🗛	dvanced Mode Global Settings			
VLAN 🗢 Spanning Tree 🗢	- 10 m h	CoS/802.1p		
Multicast 🗢 QoS 🗢	Trust Mode	CoS/802.1p-DSCP IP Precedence		
General	Default Mode Status	○ Trusted		
QoS Basic Mode D QoS Advanced Mode D	Apply			
Global Settings Class Mapping Aggregate Police				
Policy Table	Information Name		Information Value	
Policy Class Maps	Trust Mode		CoS	
Policy binding	Default Mode Status		Not Trusted	
Rate Limit Þ	L			
Security 🗢				
Access Control List 🗢				
MAC Address Table 🗢				
LLDP 🗢				
Diagnostics 🗢				
RMON 🗢 🗡				

## 4.7.3.2 Class Mapping

To display the Class Mapping page, click **QoS > QoS Advanced Mode > Class Mapping.** 

This page allows you to create a QoS class, which is used to link the ACL.

SAVE   LOGOUT   REBOOT	REFRE	SH -			
Syste m	<b>▽</b> ^	Class Configurat	ion		
Port Management	~				
Link Aggregation	~	Class Configuration			
VLAN	▽				
Spanning Tree	~	Class Name			
Multicast	⊽	ROBERT CONTRACT	OIP		
QoS	~	Match ACL Type	OMAC		
			O IP of MAC		
General Osc Basis Mode	D	IP	IPv4 or IPv6	~	
QoS Advanced Mode	Þ	MAC	~		
01.1.1.0.11			. IP		
Global Settings		Preferred ACL	OMAC		
Aggregate Police					
Policy Table		Add			
Policy Class Maps					
Policy Binding		- Oliver Table			
Rate Limit	Þ	<ul> <li>Class Table</li> </ul>			
Security	17	Class Name		Match	Action
Assess Control List					
Access Control List	~				
MAC Address Table					
LLDP	~				
Diagnostics	▽				
RMON					

## 4.7.3.3 Aggregate Police

To display the Aggregate Police page, click **QoS > QoS Advanced Mode > Aggregate Police.** 

SAVE   LOGOUT   REBOO	T   REFR	ESH					
Syste m	~	Aggregate Police					
Port Management	~						
Link Aggregation	~	Aggregate Police Config	uration				
VLAN	~	Aggregat	e Police Name				
Spanning Tree	~						
Multicast	~	Ingress Committee	d Information Rate (CIR)	16	KBits/s		
QoS	~	Ingress Commit	tted Burst Size (CBS)	128	Bytes		
General	D	Exce	ed Action	Forward	Drop		
QoS Basic Mode	D						
QoS Advanced Mode	Þ	Add					
Global Settings							
Class Mapping							
Aggregate Police		<ul> <li>Aggregate Police Table</li> </ul>	2				
Policy Table							
Policy Class Maps		Police Name	Ingress CIR	Ingress C	BS	Exceed Action	Action
Policy Binding							
Rate Limit	Þ						
Consulta							
Security							
Access Control List	~						
MAC Address Table	~						
LLDP	~						
Diagnostics	~						
RMON	~ ~						

## 4.7.3.4 Policy Table

To display the Policy Table page, click **QoS** > **QoS** Advanced Mode > Policy Table. This page allows you to establish your Policy Configuration and edit the Policy Name.

SAVE   LOGOUT   REBOOT   REFF	SH	
System Port Management →	Policy Configuration	
Link Aggregation VLAN ▼	Policy Configuration	
Spanning Tree ♥ Multicast ♥		
QoS 🗢		
General D QoS Basic Mode D QoS Advanced Mode D	* Policy Table	_
Global Settings Class Mapping	Policy Name Delete	-
Aggregate Police Policy Table Policy Class Maps		
Policy Binding		
Security 🗢		
Access Control List → MAC Address Table →		
LLDP 🗢		
Diagnostics 🗢 🗢		

#### 4.7.3.5 Policy Class Maps

One or more class maps can be added to a policy. A class map defines the type of packets that are considered to belong to the same traffic flow.

To display the Policy Class Maps page, click **QoS > QoS Advanced Mode > Policy Class Maps.** 

SAVE   LOGOUT   REBOOT	REFRES	4			
Syste m	~ ^	Policy Class Maps			^
Port Management	~				
Link Aggregation	▽	Policy Class Configuration			
VLAN	~	Policy Name			
Spanning Tree	~	Poncy Name			
Multicast	~	Class Name	<u> </u>		
QoS General	▽	Action Type	Trust None     Always Trust     Set Owene		
QoS Basic Mode QoS Advanced Mode Global Settings	0 0	Police Type	None     Single     Aggregate		
Class Mapping Aggregate Police		Aggregate Police	×		
Policy Table		Ingress Committed Information Rate (CIR)	16 KBits/s		
Policy Class Maps Policy Binding		Ingress Committed Burst Size (CBS)	128 Bytes		
Rate Limit	Þ	Exceed Action	Forward      Drop		
Security	~	Add	·		
Access Control List	~	Add			
MAC Address Table	~				
LLDP	7	▼ Policy Class Map Table			
Diamanting					
Diagnostics		Policy Name Class Name Action Type	Police Type Aggregate Poli	ce Name CIR CBS Exceed Action Modify	

Policy Name: Displays the policy to which the class map is being added.

**Class Name:** Select an existing class map to be associated with the policy. Class maps are created on the Class Mapping page.

Action Type: Select the action regarding the ingress CoS/802.1p and/or DSCP value of all the matching packets.

**Police Type:** Available in Layer 2 system mode only. Select the policer type for the policy. **Aggregate Policer:** Available in Layer 2 system mode only. If Police Type is Aggregate, select a previously defined (in the Aggregate Policer page) aggregate policer.

**Ingress Committed Information Rate (CIR):** Enter the CIR in kbps. See a description of this on the Bandwidth page.

**Ingress Committed Burst Size (CBS):** Enter the CBS in bytes. See a description of this on the Bandwidth page.

Exceed Action: Select the action assigned to incoming packets exceeding the CIR.

## 4.7.3.6 Policy Binding

The Policy Binding page shows which policy profile is bound and to which port. When a policy profile is bound to a specific port, it is active on that port. Only one policy profile can be configured on a single port, but a single policy can be bound to more than one port.

When a policy is bound to a port, it filters and applies QoS to ingress traffic that belongs to the flows defined in the policy. The policy does not apply to traffic egress to the same port.

To edit a policy, it must first be removed (unbound) from all those ports to which it is bound.

To display the Policy Binding page, click QoS > QoS Advanced Mode > Policy Binding.

SAVE   LOGOUT   REBOOT   REFRESH									
System	Policy Binding		^						
Link Aggregation     マ       VLAN     マ       Spanning Tree     マ       Multicast     マ	Policy Binding Policy Select Binding Port Select Ports								
QoS     マ       General     D       QoS Basic Mode     D       QoS Advanced Mode     D	Apply  • Policy Binding Table								
Global Settings Class Mapping Aggregate Police Policy Table Policy Class Maps	Port GE1 GE2 GE3	Policy Name							
Policy Binding Rate Limit	GE4 GE5								
Access Control List $\bigtriangledown$ MAC Address Table $\bigtriangledown$	GE6 GE7 GE8 GE6								
LLDP	GE9 GE10 GE11		~						

# 4.7.4 Rate Limit

## 4.7.4.1 Ingress Bandwidth Control

To display the Ingress Bandwidth Control page, click **QoS > Rate Limit > Ingress Bandwidth Control.** 

This page allows you to set the ingress bandwidth control.

SAVE   LOGOUT   REBOOT   REFRESH									
System 🗢 ^	Ingress Band	width Control			^				
Port Management 🗢	ingress bandwidth Control								
Link Aggregation 🗢	gregation v								
VLAN 🗢	Bure bing to busis Setting								
Spanning Tree 🗢		(1-05555),	unit. byte)						
Multicast 🗢 I	ngress Bandwidth (	Control Settings							
QoS 🗢	Port	State	Rate(Kbps)						
General D	Select Ports 🔹		(0-1000000, must a multiple of 16)						
QoS Advanced Mode									
Rate Limit 🛛 🛓	Apply								
Ingress Bandwidth									
Ingress VLAN Settings	<ul> <li>Ingress Port Burst</li> </ul>	Size Configuration							
Egress Bandwidth	Information Name		Information Value						
Egress Queue Settings	Burst Size		32768 Bytes	Ξ.					
				v					
Security V	<			>					
MAC Address Table	Ingress Bandwidth	Control Status							
				<u> </u>					
Diagnostics 🗢	Port	Ingress Rate	e Limit (Kbps)						
RMON	GE1	Off							
	1012	1011							

## 4.7.4.2 Ingress VLAN Settings

To display the Ingress VLAN Settings page, click **QoS > Rate Limit > Ingress VLAN Settings.** 

This page is used to set the bandwidth of the VLAN entry control.

SAVE   LOGOUT   REBOOT   REFRES	н	
System 🗢 🔶	VLAN	Ingress Rate Limit
Port Management 🗢		
Link Aggregation 🗢	VLAN Ingre	ss Rate Settings
VLAN 🗢	VIAN	
Spanning Tree 🗢 🗢	VEAN	
Multicast 🗢	Port	ALL Y
QoS 🗢	State	Disable      Denable
General D	Rate(Kbps)	(0-1000000, must a multiple of 16)
QoS Basic Mode D		
QoS Advanced Mode 👂	Apply	
Rate Limit 🛛 👂 😑		
Ingress Bandwidth Control	▼ VLAN Ing	ress Rate Status
Ingress VLAN Settings		
Egress Bandwidth Control	VLAN	Port Rate (Kbps)
Egress Queue Settings		
Security 🗢		
Access Control List 🗢		
MAC Address Table 🗢		
LLDP 🗢		
Diagnostics 🗢		
RMON V		

## 4.7.4.3 Egress Bandwidth Control

To display the Egress Port Settings page, click **QoS > Rate Limit > Egress Bandwidth Control.** 

This page is used to set the egress bandwidth control.

SAVE   LOGOUT   REBOOT   REFRESH										
System	Egress Bandwidth Control									
Link Aggregation 🗢 VLAN 🗢	Egress Port Burst S	Egress Port Burst Setting								
Spanning Tree 🗢 Multicast 🗢	Egress Bandwidth C	Burst Size (1-65535, unit: Byte)								
QoS 🗢	Port	State	Rate(Kbps)							
General D QoS Basic Mode D	Select Ports 👻	◉Disable ○Enable	(0-1000000, must a multiple of 16)							
QoS Advanced Mode D Rate Limit D	Apply									
Ingress Bandwidth Control	<ul> <li>Egress Port Burst S</li> </ul>	ize Configuration								
Earnese Bandwidth										
Control	Information Name		Information Value							
Egress Queue Settings	Burst Size		32768 Bytes							
				×						
Security V	<			>						
Access Control List	▼ Earors Bandwidth	Control Status								
MAC Address Table 🗢	Egress bandwidth	control status		^						
	Port	Egress Rate	e Limit (Kbps)							
Diagnostics 🗢	GE1	Off								
RMON 👻 🗸	NNON CF2 Off									

## 4.7.4.4 Egress Queue Settings

To display the Egress Queue Settings page, click **QoS > Rate Limit > Egress Queue** Settings.

The page is used to set the egress bandwidth parameters.

SAVE   LOGOUT   REBOOT   REFR	ESH								
System 🗢 🔨	Egress Que	ue Bandwidth Cont	trol						
Port Management 🗢									
Link Aggregation 🗢	Edress Queue Bur	et Setting							
VLAN 🗢									
Spanning Tree 🗢	Burst Size	(1-65535, u	nit: 1 Byte)						
Multicast 🗢	Egress Queue Ban	dwidth Control Setti	ngs						
Qo S 🗢	Port	Queue	State	CIR(Kbps)					
General D	GE1 V	1 🗸	Disable      Denable	(0-1000000, must a multiple of 16)					
QoS Basic Mode D									
QoS Advanced Mode D	Apply								
Rate Limit 🛛 🗎									
Ingress Bandwidth Control	T Farace Quana Bu	ret Sizo Configuration							
Ingress VLAN Settings	Egress Queue bu	inst size configuration			0				
Egress Bandwidth Control	Information Nam	e		Information Value					
Egress Queue Settings	Burst Size			32768 Bytes					
Security 🗢	<				>				
Access Control List 🛛 🗢									
MAC Address Table 🛛 🗢	GE1 Egress Per C	Queue Status							
LLDP 🗢	Queue ID		Rate Limit (K	bps)					
Diagnostics 🗢	1		Off						
RMON -			0"						

# 4.8 Security

Use the Security pages to configure settings for the switch's security features.

# 4.8.1 Storm Control

#### 4.8.1.1 Global Setting

To display the Global Setting page, click Security > Storm Control > Global Setting.

SAVE   LOGOUT   REBOOT   REPRESH												
System Port Management	stem v Anagement v											
Link Aggregation 🗢 Storm Control Global Setting												
VLAN	~		Unit	🖲 pps 🔿 bps								
Spanning Tree Multicast	⊽ ⊽		Preamble & IFG	Excluded      Included								
QoS	~		Analysis									
Security	~		Apply									
Storm Control	Þ		Storm Control Global Information									
Port Setting	_		Information Name		Information Value							
802.1X	Þ		Unit		bps							
DHCP Snooping	Þ		Preamble & IFG		Excluded							
Port Security												
AAA TAGAGGI Gunna	Þ											
Radius Server												
Access	Þ											
Access Control List	~											
MAC Address Table	~											
LLDP	~											
Diagnostics	~											
RMON	V	~										

Unit: Choose a storm control unit: pps or bps.

Preamble & IFG: Choose to include or exclude Preamble & IFG (20 bytes).

- $\ell\,$  Excluded: exclude preamble & IFG (20 bytes) when count ingress storm control rate.
- $\imath$  Included: include preamble & IFG (20 bytes) when count ingress storm control rate.

#### 4.8.1.2 Port Setting

To display the Port Setting page, click **Security > Storm Control > Port Setting.** 

SAVE   LOGOUT   REBOO	T   REFRES	н								
System Port Management	~ ^	Storn	Control							
Link Aggregation	~	Storm Con	rol Setting	1						
/LAN	▽	Po	t F	ort State	Action	Туре	Enable	Rate (unit:16Kbps)		
panning Tree	▽					Reado	ant	10000		
lulticast	~			Disable			aor	10000		
to S	~	Select Ports		Enable	Drop 💙	Unknow	wn Multicast	10000		
Security	~					Unknow	wn Unicast	10000		
Storm Control	Þ		-							
Global Setting		Apply								
Port Setting										
802.1X	Þ	- Storm C	ontrol Infor	mation						
DHCP Snooping	Þ			0						4.47
Port Security		Port	Port State	Broad	icast (16Kbps	)	Unknown	Aulticast (16Kbps)	Unknown Unicast (16Kbps)	Action
TACACS+ Server	D	GE1	disabled	0# (10	0000)		0# (10000)		0# (10000)	Drop
Padius Server		GE2	disabled	Off (10	0000)		Off (10000)		Off (10000)	Drop
Access	Þ	GE3	disabled	Off (10	0000)		Off (10000)		Off (10000)	Drop
		GE4	disabled	Off (10	0000)		Off (10000)		Off (10000)	Drop
ccess Control List	~	GE5	disabled	Off (10	0000)		Off (10000)	8	Off (10000)	Drop
IAC Address Table	~	GE6	disabled	Off (10	0000)		Off (10000)		Off (10000)	Drop
LDP	~	GE7	disabled	Off (10	0000)		Off (10000)		Off (10000)	Drop
Diagnostics	~	GE8	disabled	Off (10	0000)		Off (10000)		Off (10000)	Drop
MON										

Port: Select the setting ports.

Type Enable: Select the type of storm control.

- e Broadcast: Broadcast packet.
- e Unknown Multicast: Unknown multicast packet State.
- e Unknown Unicast: Unknown unicast packet.

**Rate:** Value of the storm control rate. Unit: pps (packet per-second) or Kbps (Kbits per-second) depends on global mode setting. The range is from 0 to 1000000.

#### 4.8.2 802.1X

802.1x is based on the Client/Server access control and authentication protocol. It can restrict any unauthorized users or devices trying to connect to the access port of the LAN/WLAN. Before getting the mission from the switch or LAN, the 802.1x will check the users or devices that connect with the switch ports. Before the devices or users pass the "test," it only accepts the EAPoL data connected with the switch; but after it passes, the ordinary data all can be transmitted through Ethernet ports.

#### 4.8.2.1 802.1X Setting

To display the 802.1X Setting page, click Security > 802.1X > 802.1X Setting.

SAVE   LOGOUT   REBOOT   REFRESH									
System -	- 80	02.1x Setting							
Port Management	~	•							
Link Aggregation	802.1x	Setting							
VLAN .	-								
Spanning Tree	-	802.1X	Disable O Enabl	e					
Multicast	App	ply							
QoS	~								
Security	7 803	2.1x Information							
Storm Control	Þ	2.12 1110111181011							
802.1X	Þ 🗉 🛛 Inf	formation Name		Information Value					
802.1X Setting	80	2.1X		Disabled					
802.1X Port Setting									
Guest VLAN Setting									
Authenticated Hosts									
DHCP Snooping	b								
Port Security									
AAA	Þ								
TACACS+ Server									
Radius Server									
Access	U								
Access Control List	7								
MAC Address Table	7								
LLDP									

802.1X: Set the enabling status of 802.1X functionality.

- ε Enable: Enable 802.1X.
- $\ell$  Disable: Disable 802.1X.

#### 4.8.2.2 802.1X Port Setting

To display the 802.1X Port Setting page, click **Security > 802.1X > 802.1X Port Setting.** 

SAVE   LOGOUT   REBOOT   I	REFRESH										-
System .	-	802	.1x Port Settin	ıg							^
Port Management 🔹	7										
Link Aggregation	7	802.1x P	ort Setting								
VLAN	7		Port	Select	Ports 👻						
Spanning Tree	7										
Multicast	7		Mode	No Aut	hentication						
QoS .	~	Reauthe	entication Enable	O Dis	able 🔘 Enable						
Security .	7	Reauthe	entication Period	3600	(Range 30 -	65535, Default: 3600)					
Storm Control	Þ	Q	uiet Period	60	(Range 0 - 65535, Defa	ult: 60)					
802.1X	P	Supr	licant Period	30	(Denne 1, REEDE Defe						
802.1X Setting					(Kalige 1- 00000, Dela	ian. 50)					
802.1X Port Setting		Maximun	n Request Retrie	2	(Range 1 - 10, Default:	2)					
Guest VLAN Setting											
Authenticated Hosts		Apply									
DHCP Snooping	Þ										
Port Security											
AAA	Þ	_									
TACACS+ Server		* 802.1	x Port Status								
Radius Server										_	^
Access	v	Port	Mode (pps) Si	atus ps)	Periodic Reauthentication	Reauthentication Period	Quiet Period	Supplicant Timeout	Max. EAP Requests	Modify	
Access Control List	7		902 1V	. ,							
MAC Address Table	7	GE1	Disabled		Enabled	3600	60	30	2	Edit	
LLDP	~	GE2	802.1X		Enabled	3600	60	30	2	Edit	~

Port: Select the ports to configure their authentication mode.

Mode: The authentication mode.

- $\ell$  Force Unauthorized: Force this port to be unconditional unauthorized.
- $\ell$  Force Authorized: Force this port to be unconditional authorized.
- e Authentication: 802.1X authentication.
- e No Authentication: 802.1X disabled.

**Reauthentication Enable:** Set the enabling status of 802.1X reauthentication. **Reauthentication Period:** Set the reauthentication period of 802.1X if reauthentication is enabled.

#### 4.8.2.3 Guest VLAN Setting

Guest VLAN provides access to services that do not require the subscribing devices or ports to be 802.1x or MAC-based authenticated and authorized.

An unauthenticated VLAN is a VLAN that allows access by both authorized and unauthorized devices or ports. You can configure one or more VLANs to be unauthenticated in Creating VLANs.

To display the Guest VLAN Setting page, click **Security > 802.1X > Guest VLAN Setting.** 

SAVE   LOGOUT   REBOOT   REFR	SH			
System	Dot1x Guest VLAN			^
Link Aggregation 🗢 VLAN 🗢	Guest VLAN Setting			
Spanning Tree 🗢 🗢	Guest VLAN ID	C Enable		
Multicast 🗢	Guest VLAN Port Setting			
QoS 🗢	Port Select Guest VLAN			
Security 🗢	Select Ports CEnabled  Disable	ed		
Storm Control D		_		
802.1X ₽ ≡	Apply			
802.1X Setting				
Guest VLAN Setting	▼ Guest VLAN Status			
Authenticated Hosts	Distance in the second s			^
DHCP Snooping D	Port Name	Enable State	In Guest VLAN	
Port Security	GE1	Disabled	NO	
AAA Þ	GE2	Disabled	NO	
TACACS+ Server	GE3	Disabled	NO	
Radius Server	GE4	Disabled	NO	
Access	GE5	Disabled	NO	
Access Control List 🗢	GE6	Disabled	NO	
MAC Address Table 🗢 🗢	GE7	Disabled	NO	
LLDP 🗢 🗸	GE8	Disabled	NO	~

#### 4.8.2.4 Authenticated Hosts

To display the Authenticated Hosts page, click **Security > 802.1X > Authenticated Hosts.** 

SAVE   LOGOUT   REBOO	T   REFRE	SH				
Syste m		Authenticate	d Hosts			
Port Management	~					
Link Aggregation	~					
VLAN	~	<ul> <li>Authenticated Ho</li> </ul>	st Table			
Spanning Tree	~	User Name	Port	Session Time	Authentication Method	MAC Address
Multicast	▽					
QoS	~					
Security	~					
Storm Control	Þ					
802.1X	Þ					
802.1X Setting						
802.1X Port Setting	)					
Guest VLAN Settin	g					
Authenticated Host	S					
DHCP Snooping	Þ					
Port Security						
AAA TACACEL Server	Þ					
Radius Server						
Access	D					
Access Control List	-					
MAC Address Table	_					
MAC Address lable	~					
LLDP	~ ~					

User Name: Supplicant names that were authenticated on each port.

Port: Number of the port.

**Session Time (DD:HH:MM:SS):** Amount of time that the supplicant was logged on the port.

Authentication Method: Method by which the last session was authenticated.

The options are:

- $\ell\,$  None: No authentication is applied; it is automatically authorized.
- $\ell$  RADIUS: Supplicant was authenticated by a RADIUS server.

MAC Address: Displays the supplicant MAC address.

# 4.8.3 DHCP Snooping

When the switch opens DHCP Snooping, it will snoop DHCP messages and receive DHCP requests, and abstract and record the IP address and MAC address from the DHCP ACK message. DHCP Snooping admits one physical port setting as a creditable

port or discreditable port. Creditable ports can receive and forward the DHCP offer message; whereas, the discreditable port will lose the DHCP offer message. In so doing, the switch can pick out the fake DHCP server and make sure that the client gets legal IP addresses from the DHCP server.

## 4.8.3.1 Global Setting

To display the Global Setting page, click **Security > DHCP Snooping > Global Setting.** This page is used to open the DHCP Snooping function.

SAVE   LOGOUT   REBOOT   I	REFRESH		
System	DHCP Snooping Setting		
Link Aggregation	▼		
VIAN	DHCP Snooping Setting		
Spanning Tree	DHCP Snooping	Enabled Disabled	
Multicast	-		
Oos	Apply		
Constant	<u>-</u>		
Security	➡ → DHCP Snooping Information		
Storm Control	Þ		
802.1X	Information Name	Information Value	
DHCP Snooping	DHCP Snooping	Disabled	
Global Setting			
VLAN Setting			
Port Setting			
Statistics			
Rate Limit			
Option82 Global Setting			
Option82 Port Setting			
Option82 Circuit-ID Setting			
Port Security			
AAA	D		
TACACS+ Server			
Radius Server	▼		

**DHCP Snooping:** Enable or disable the DHCP Snooping function.

#### 4.8.3.2 VLAN Setting

To display the VLAN Setting page, click **Security > DHCP Snooping > VLAN Setting.** 

This page allows you to configure the DHCP Snooping VLAN, enable status on a VLAN, and move the VLAN from the Available VLANs list to the Enabled VLANs list.

SAVE   LOGOUT   REBOUT   I	IEF RE SH	
System	DHCP Snooping VLAN Setting	
Port Management		
Link Aggregation VLAN Spanning Tree	DHCP Snooping VLAN Setting VLAN LIST Status	
Multicast	CEnabled  Disabled	
QoS	Apply	
Security	oppiy	
Storm Control 802.1X DHCP Snooping	THCP Snooping VLAN Setting	
Global Setting	MI AN LINE	Cantur
VLAN Setting	VLAN LISI	Status
Port Setting	No VLANs	Enabled
Statistics Rate Limit		
Option82 Global Setting Option82 Port Setting		
Option82 Circuit-ID Setting		
Port Security		
AAA	D	
TACACS+ Server		
Radius Server	<b>v</b>	

## 4.8.3.3 Port Setting

To display the Port Setting page, click **Security > DHCP Snooping > Port Setting.** 

This page allows you to configure a specific port as a DHCP Snooping trust port.

SAVE   LOGOUT   REBOOT   I	REFRESH			
System 🔹	рнс	P Snooping Port Setting		
Port Management 🔹		· · · · · · · · · · · · · · · · · · ·		
ink Aggregation		aning Dest Oction		
VLAN .	DHCP Sho	boping Port Setting		
Spanning Tree	- Pc	ort Type	Chaddr Check	
ulticast s	Select Port	s 💽 🖲 Un Trusted 🔿 Tru	sted OEnable  OEnable	
o.S				
	Apply			
ecurity	2			
Storm Control	Þ			
802.1X	Þ			
DHCP Snooping	DHCP S	nooping Port Setting		
Global Setting	Port	Тупе		Chaddr Check
VLAN Setting	CE1	Lin Trusted		Disabled
Port Setting	GET			Disabled
Rate Limit	GEZ	Un Trusted		Disabled
Option82 Global	GE3	Un Trusted	8	Disabled
Setting	GE4	Un Trusted	Q	Disabled
Option82 Port Setting	GE5	Un Trusted		Disabled
Option82 Circuit-ID Setting	GE6	Un Trusted		Disabled
	GE7	Un Trusted	8	Disabled
Port Security	GE8	Un Trusted		Disabled
TACACS+ Server	GE9	Un Trusted		Disabled
Radius Server	Y GE10	Un Trusted		Disabled

## 4.8.3.4 Statistics

To display the Statistics page, click **Security > DHCP Snooping > Statistics.** 

This page presents statistics of each port and DHCP Snooping state information.

SAVE   ECOUT   REDU	or prenesh						
Syste m		рно	P Snoopin	g Statistics			
Port Management	~			5			
Link Aggregation	~						
VLAN	~	- DHCP	Snooning Stat	istics			
Spanning Tree	~	biter	shooping stat	istics.			
Multicast	~	Cle	ar Ref	resh			
QoS	~	Port	Forwarded	Chaddr Check Dropped	Untrust Port Dropped	Untrust Port With Option82 Dropped	Invalid Dropped
Security	~	GE1	0	0	0	0	0
Storm Control	Þ	GE2	0	0	0	0	0
802.1X	Þ	GE3	0	0	0	0	0
DHCP Snooping	Þ	GE4	0	0	0	0	0
Global Setting		GE5	0	0	0	0	0
VLAN Setting		GE6	0	0	0	0	0
Port Setting		GE7	0	0	0	0	0
Rate Limit		GE8	0	0	0	0	0
Option82 Global		GE9	0	0	0	0	0
Option82 Port Set	tting	GE10	0	0	0	0	0
Option82 Circuit-I	D	GE11	0	0	0	0	0
Setting		GE12	0	0	0	0	0
Port Security		GE13	0	0	0	0	0
AAA TACACS+ Server	D	GE14	0	0	0	0	0
Padius Server		GE15	0	0	0	0	0

## 4.8.3.5 Rate Limit

To display the Rate Limit page, click Security > DHCP Snooping > Rate Limit.

This page allows you to set DHCP Rate Limit for each port and restrict the Internet speed.

SAVE   LOGOUT   REBOOT   REFF	RESH					
System 🗢	^	DHCP Rate Limit				^
Port Management 🗢						
Link Aggregation 🗢	DHO	CP Rate Limit Setting				
VLAN 🗢		Port	State	Rate Limit (pps)		
Spanning Tree 🗢	Sel	ect Ports 👻	Default Oliser-Define	Unlimited (1~50 pps)	-	
Multicast 🗢			O Delaute O Gael-Deline	(1-50 pps)		
QoS 🗢		Apply				
Security 🗢						
Storm Control D 802.1X D	•	DHCP Rate Limit Config				
DHCP Snooping D		Port Name		Rate Limit (pps)		
Global Setting		GE1		Unlimited		
VLAN Setting		GE2		Unlimited		
Statistics		GE3		Unlimited		
Rate Limit		GE4		Unlimited		
Option82 Global		GE5		Unlimited		
Option82 Port Setting		GE6		Unlimited		
Option82 Circuit-ID		GE7		Unlimited		
Setting		GE8		Unlimited		
Port Security		GE9		Unlimited		
AAA D		GE10		Unlimited		
Radius Server	-	GE11		Unlimited		~

## 4.8.3.6 Option82 Global Setting

To display the Option82 Global Setting page, click **Security > DHCP Snooping > Option82 Global Setting.** 

This page is used to configure DHCP Snooping support Option82 strategy.

SAVE   LOGOUT   REBOOT   REFF	ESH	
System 🗢 🏳 Port Management 🗢	DHCP Option82 Global Setting	
Link Aggregation 🗢		
VLAN 🗢	Option82 Global Setting	
Spanning Tree 🗢	Remote ID	
Multicast 🗢		
QoS 🗢	Арріу	
Security 🗢		
Storm Control	✓ Option82 Global Setting	
DHCR Speeping		
Differ Shooping P	Information Name	Information Value
Global Setting	Option82 Remote ID	de:ad:be:ef:1:2 (Byte Format)
VLAN Setting		
Port Setting		
Bata Limit		
Ontion82 Global		
Setting		
Option82 Port Setting		
Option82 Circuit-ID Setting		
Port Security		
AAA D		
TACACS+ Server		
Radius Server	A	

## 4.8.3.7 Option82 Port Setting

To display the Option82 Port Setting page, click **Security > DHCP Snooping > Option82 Port Setting.** 

SAVE   LOGOUT   REBOOT	REFRESH	1				
System	~	Option82 Port	Setting			^
Port Management	~					
Link Aggregation	~	Option82 Port Settin	a			
VLAN	~	Port	Enable	Allow UnTrusted		
Spanning Tree	▽			Allow on a dotted		
Multicast	▽	Select Ports *	OEnable Oisable	Keep 💌		
QoS	~					
Security	~	Арріу				
	-					
Storm Control	Þ					
802.1X	Þ	* Option 22 Part Set	in a			
brief Shooping	r.	Optiono2 Fort Set	ing			
Global Setting		Port	Enable		Allow UnTrusted	
VLAN Setting		GE1	Disabled		Drop	
Statistics		GE2	Disabled		Dran	
Rate Limit		052	Disabled			
Option82 Global		GE3	Disabled		Drop	
Setting		GE4	Disabled		Drop	
Option82 Port Setting	)	GE5	Disabled		Drop	
Option82 Circuit-ID Setting		GE6	Disabled		Drop	
Dart Casurity		GE7	Disabled		Drop	
AAA	D.	GE8	Disabled		Drop	
TACACS+ Server		GE9	Disabled		Drop	
Radius Server	~	CE10	Disabled		Dran	~

## 4.8.3.8 Option82 Circuit-ID Setting

To display the Option82 Circuit-ID Setting page, click **Security > DHCP Snooping > Option82 Circuit-ID Setting.** 

This page allows you to edit the circuit ID content in the Option82 settings.

SAVE   LOGOUT   REBOOT	REFRES	H				
Syste m		Option82 Port	Circuit-ID Setting			
Port Management	~					
Link Aggregation	~	Option82 Port Circui	t-ID Setting			
VLAN	~	Port	VLAN	Circuit ID		
Spanning Tree	~	Select Ports ×				
Multicast	~	Selections		Obefault OUser-Define		
QoS	~	Apply				
Security	~					
Storm Control 802.1X	Þ Þ					
DHCP Snooping	Þ	<ul> <li>Option82 Port Setti</li> </ul>	ing			
Global Setting VLAN Setting		Port	VLAN		Circuit ID	
Port Setting Statistics						
Rate Limit						
Option82 Global Setting						
Option82 Port Setting						
Option82 Circuit-ID Setting						
Port Security						
AAA	D					
TACACS+ Server						
Radius Server	~					

## 4.8.4 Port Security

To display the Port Security page, click **Security > Port Security.** 

Port Security allows the determination of port isolation and specific behavior.

SAVE   LOGOUT   REBOO	T   REFRE	ESH						
System Port Management	⊽	Port Security						
Link Aggregation	~	Port Security Settin	qs					
VLAN	~	Port Select	Security	Max L2 Entry	Actio	on	Trap Frequency (sec.)	
Spanning Tree Multicast	4	Select Ports 🔹	OEnabled  Oisabled	Unlimited	Forward	~	10	
Q o S	~	Apply						
Storm Control 802.1X DHCP Snooping	Ф Ф Ф	Port Security State     Port Name	is Enable State	12 Entr	/ Num	Action	Tran Frequency	
Port Security		CE1	Disabled	16383	num	Forward	Trap Trequency	
TACACS+ Server	U	GE2	Disabled	16383		Forward		
Radius Server		GE3	Disabled	16383		Forward		
Access	Þ	GE4	Disabled	16383		Forward		
Access Control List	~	GE5	Disabled	16383		Forward	-	
MAC Address Table	~	GE6	Disabled	16383		Forward		
LLDP	▽	GE7	Disabled	16383		Forward		
Diagnostics	~	GE8	Disabled	16383		Forward		
RMON	~	GE9	Disabled	16383		Forward		
Maintenance	~	GE10	Disabled	16383		Forward		
		GE11	Disabled	16383		Forward	-	

Port Select: Select one or multiple ports to configure.

**Security:** Port security function. It limits how many MAC addresses can be recognized by a port and blocks new ones once the limit is reached.

- ε Enable: Enable port security function.
- e Disable: Disable port security function.

Max L2 Entry: The total number of MAC addresses that can be recognized by a port.

## 4.8.5 AAA

#### 4.8.5.1 Login List

To display the Login List page, click Security > AAA > Login List.

This page allows you to add, edit and delete Login Authentication List settings (the "default" list cannot be deleted). The items in this list will authenticate login users by the incorporated methods. If the first method fails, it will try to use the next priority method to authenticate.

SAVE   LOGOUT   REBOOT	REFRESH							
System Port Management	▽ ^	Login Authen	itication Lis	t				
Link Aggregation	<del>.</del>							
VI AN		New Authentication	List					
VLAN		List Name	Method 1	Method 2	Method 3	Method 4		
Spanning Tree	~		Empty 🔽	Empty 💙	Empty 🗸	Empty V		
Multicast	~							
QoS	~	Add						
Security	~							
Storm Control 802.1X	Þ Þ =	🝷 Login Authenticat	tion Lists					
DHCP Snooping	Þ	List Name		M	ethod List		Modify	
AAA	Þ	Default		Lo	ocal		Edit	
Enable List								
Accounting List								
Accounting Update								
TACACS+ Server								
Radius Server								
Access	D							
Access Control List	~							
MAC Address Table	-							
LLOD								
LLDP	▼							

**List Name:** New Login Authentication List name. This name should be different from other existing lists.

**Method 1:** Select the first priority method for login authentication.

 $\boldsymbol{\ell}$  Local: Use local accounts database to authenticate.

 $\ell$  Tacacs+: Use remote TACACS+ server to authenticate.

 $\ell$  Radius: Use remote Radius server to authenticate. Not supported now, it will be supported in the future.

ε Enable: Use local enable password to authenticate.

Method 2: Select the second priority method for login authentication.

 $\ell\,$  Local: Use local accounts database to authenticate.

 $\ell$  Tacacs+: Use remote TACACS+ server to authenticate.

 $\ell$  Radius: Use remote Radius server to authenticate. Not supported now, it will be supported in the future.

ε Enable: Use local enable password to authenticate.

Method 3: Select the third priority method for login authentication.

 $\ell\,$  Local: Use local accounts database to authenticate.

 $\ell$  Tacacs+: Use remote TACACS+ server to authenticate.

 $\ell$  Radius: Use remote Radius server to authenticate. Not supported now, it will be supported in the future.

 $\ell\,$  Enable: Use local enable password to authenticate.

Method 4: Select the fourth priority method for login authentication.

 $\ell\,$  Local: Use local accounts database to authenticate

 $\ell\,$  Tacacs+: Use remote TACACS+ server to authenticate.

 $\ell$  Radius: Use remote Radius server to authenticate. Not supported now, it will be supported in the future.

*i* Enable: Use local enable password to authenticate.

#### 4.8.5.2 Enable List

To display the Login List page, click **Security > AAA > Enable List.** 

This page allows you to add, edit or delete Enable Authentication List settings (the "default" list cannot be deleted). The line attached to this list will authenticate a user issuing the "enable" command by methods in this list. If the first method fails, it will try to use the next priority method to authenticate.

SAVE   LOGOUT   REBOOT	REF	RESH					
Syste m	stem ──						
Port Management	~						
Link Aggregation	~	New Authenticati	on list				
VLAN	~	List Name	Method 1	Method 2	Method 3		
Spanning Tree	~		Emeter	Emate	Emply		
Multicast	~		Empty	Empty	Empty		
QoS	~	Add					
Security	~						
Storm Control 802.1X	D D	✓ Enable Authen	ication Lists				
DHCP Snooping	Þ	List Name		Met	hod List		Modify
AAA	Þ	Default		Enal	ble		Edit
Login List Enable List							
Accounting List							
Accounting Update							
TACACS+ Server							
Radius Server							
Access	D						
Access Control List	~						
MAC Address Table	▽						
LLDP	~	~					

List Name: New Enable Authentication List name. This name should be. different from

other existing lists.

Method 1: Select the first priority method for enable authentication.

 $\ell\,$  Enable: Use local enable password to authenticate

 $\ell$  Tacacs+: Use remote TACACS+ server to authenticate.

 $\ell$  Radius: Use remote Radius server to authenticate. Not supported now, it will be supported in the future.

Method 2: Select the second priority method for enable authentication.

 $\ell\,$  Enable: Use local enable password to authenticate

 $\ell$  Tacacs+: Use remote TACACS+ server to authenticate.

 $\ell$  Radius: Use remote Radius server to authenticate. Not supported now, it will be supported in the future.

Method 3: Select the third priority method for enable authentication.

 $\ell\,$  Enable: Use local enable password to authenticate.

 $\ell$  Tacacs+: Use remote TACACS+ server to authenticate.

 $\ell$  Radius: Use remote Radius server to authenticate. Not supported now, it will be supported in the future.

#### 4.8.5.3 Accounting List

#### To display the Accounting List page, click Security > AAA > Accounting List.

This page allows you to add, edit or delete accounting list settings (the "default" list cannot be deleted). The line attached to this list will account for users entering the CLI shell by methods in this list. If the first method fails, it will try to use the next priority method for accounting.

SAVE   LOGOUT   REBOOT	REFRESH							
System	▽ ^	Exec Accoun	ting List					
Port Management	~							
Link Aggregation	~	New Accounting Lis	t					
VLAN	~	List Name	Record Type	Method 1	Method 2			
Spanning Tree	~		Nana	Nono	Nono			
Multicast	~		None	INUTIE	None			
QoS	~	Add						
Security	~							
Storm Control 802.1X	Þ Þ =	▼ Exec Accounting I	ists					
DHCP Snooping Port Security	Þ	List Name	Rec	ord Type		Method 1	Method 2	Modify
AAA	D	Default	Non	e		None	None	Edit
Login List Enable List	_							
Accounting List								
Accounting Update								
TACACS+ Server								
Access	Þ							
	_							
Access Control List	~							
MAC Address lable								
LLDP	~ ~							

**List Name:** New Accounting List name. This name should be different from other existing lists.

**Record Type:** Select the accounting record type.

- $\boldsymbol{\ell}$  none: No accounting.
- $\ell\,$  start-stop: Record start and stop without waiting.
- $\ell\,$  stop-only: Record stop when service terminates.

Method 1: Select the first priority method for exec accounting.

 $\ell$  Tacacs+: Use remote TACACS+ server to accounting.

 $\epsilon$  Radius: Use remote Radius server to accounting. Not supported now, it will be supported in the future.

Method 2: Select the second priority method for exec accounting.

 $\ell$  Tacacs+: Use remote TACACS+ server to accounting.

 $\ell$  Radius: Use remote Radius server to accounting. Not supported now, it will be supported in the future.

#### 4.8.5.4 Accounting Update

To display the Accounting Update page, click **Security > AAA > Accounting Update**.

SAVE   LOGOUT   REBOO	T   REFRE	SH				
System	~	Accounting Update				
Port Management	~					
Link Aggregation	~	Accounting Undate				
VLAN	~	State				
Spanning Tree	~	Juic	Clisabled Cellabled			
Multicast	▽	Preamble & IFG	1			
QoS	~					
Security	~	Арріу				
Storm Control 802.1X	Þ Þ =	▼ Accounting Update Information				
Port Security	V	Information Name		Information Value		
AAA	D	State		Disabled		
Login List		Periodic (min)		1		
Enable List		-				
Accounting List	_					
Accounting Update						
TACACS+ Server						
Radius Server						
Access	D					
Access Control List	~					
MAC Address Table	~					
LLDP	~ ~					

## 4.8.6 Tacacs+ Server

To display the Tacacs+ server page, click **Security > AAA >Tacacs+ Server**.

This page allows you to add, edit or delete TACACS+ Server settings.

SAVE   LOGOUT   REBOOT	r   Ref	ESH	
System	~	TACACS+ Ser	ver Settings
Port Management	~		
Link Aggregation	~	Use Default Paramet	ers
VLAN	~	IP Version	Version 6 Version 4
Spanning Tree	~	Key String	(0/129 ASCII Alphanimeric Charactere Lleed)
Multicast	▽	, oung	
QoS	~	Timeout for Reply	5 sec. (Range 1 - 30, Default: 5)
Security	~	Apply	
Storm Control	Þ	cibbit.	
802.1X	Þ		
DHCP Snooping	Þ		
AAA	Þ	New TACACS+ Serve	ir
TACACS+ Server		Server Definition	● By IP address ○ By name
Radius Server		Server IP	
Access	P	Server Port	49 (0 - 65535)
Access Control List MAC Address Table	4	Server Key	Use Default
LLDP	~	Server Timeout	Use Default (1-30) secs
Diagnostics	~	Server Priority	1 (0 65525)
RMON	~		(0.00000)
Maintenance	~	Add	

# 4.8.7 Radius Server

To display the Radius Server page, click **Security > AAA > Radius Server**.

This page is used for radius server settings.

SAVE   LOGOUT   REBOO	T   REFI	RESH		
Syste m		Radius Server	Settings	<u>^</u>
Port Management	~			
Link Aggregation	▽	Use Default Paramete	re la	
VLAN	~	IP Version	Version 6 Version 4	
Spanning Tree	~	Retries	3 (Range 1 - 10 Default: 3)	
Multicast	~	Time aut fan Danlu		
QoS	~	Timeout for Reply	J sec. (Range 1 - 30, Default: 3)	
Security	~	Dead Time	0 min. (Range 0 - 2000, Default: 0)	
Storm Control	Þ	Key String	(0/128 ASCII Alphanumeric Characters Used)	
802.1X	Þ			
DHCP Snooping	P	Apply		
	Б			
TACACS+ Server	v			
Radius Server				
Access	Þ	New Radius Server		
Access Control List	57	Server Definition	● By IP address ○ By name	
MAC Address Table	~	Server IP		
LLDP	⊽	Authentication Por	t 1812 (0 - 65535)	
Diagnostics	~	Acct Port	1813 (0 - 65535)	
RMON	~	Key String	Use Default	
Maintenance	~	Timeout for Reply	Use Default (1-30) secs	

# 4.8.8 Access

## 4.8.8.1 Console

To display the Console page, click **Security > Access > Console**.

This page allows you to combine all kinds of AAA lists on the console line. Attempts to access the switch from a console will be authenticated, authorized and accounted for by AAA lists combined here.

SAVE   LOGOUT   REBOC	IT   RE	FRESH					
Syste m	⊽	^	Console Settings				^
Port Management	~						
Link Aggregation	~	с	onsole Settings				
VLAN	▽	Ē	Login Authoritization List	Default			
Spanning Tree	~		Login Admentication List				
Multicast	▽		Enable Authentication List	Default			
QoS	~		EXEC Accounting List	Default			
Security	~		Session Timeout	10 (0-65535) minutes			
Storm Control	Þ		Password Retry Count	3 (0-120)			
802.1X	Þ	e –	Cilent Time	0			
DHCP Snooping	Þ		Slient Time	0 (0-65535) seconds			
Port Security		Г	And				
TACACS+ Server	υ		Арріу				
Radius Server							
Access	Þ		<ul> <li>Console Information</li> </ul>				
Consula						^	
Telnet			Information Name		Information Value		
HTTP			Login Authentication List		Default		
HTTPS			Enable Authentication List		Default		
			EXEC Accounting List		Default		
Access Control List	~						
MAC Address Table	~		Session limeout		10		
LLDP	~		Password Retry Count		3		
LLUP		*	Silent Time		0		Y

**Login Authentication List:** Select one of the Login Authentication Lists configured on the

Login List page.

Enable Authentication List: Select one of the Enable Authentication Lists configured on

the Enable List page.

**EXEC Authorization List:** Select one of the EXEC authorization lists configured on the EXEC List page.

**Commands Authorization List:** Select one of the commands authorization lists configured on the Commands List page.

**EXEC Accounting List:** Select one of the EXEC accounting lists configured on the Accounting List page.

**Session Timeout:** Set the session timeout minutes for user access CLI from console line. If a user does not respond before the session times out, CLI will log out automatically. 0 minutes means "Never timeout."

## 4.8.8.2 Telnet

To display the Telnet page, click **Security > Access > Telnet**.

This page allows you to combine all kinds of AAA lists with the Telnet line. Attempts to access the switch from Telnet will be authenticated, authorized and accounted for by AAA lists combined here.

SAVE   LOGOUT   REBOC	T   REF	RESH				
System	~	Telnet Settings				^
Port Management	▽					
Link Aggregation	~	Telnet Settings				
VLAN	~	Tolnot Forwing	Disabled			
Spanning Tree	~					
Multicast	~	Login Authentication List	Default			
QoS	~	Enable Authentication List	Default			
Security	~	EXEC Accounting List	Default			
Storm Control	Þ	Session Timeout	10 (0-65535) minutes			
802.1X DHCP Snooping	Þ	Password Retry Count	3 (0-120)			
Port Security	,	Silent Time	0 (0-65535) seconds			
TACACS+ Server Radius Server	v	Apply Disconnect		_		
Access	Þ					
Console		▼ Telnet Information				
Telnet				^	I	
HTTP		Information Name	h	nformation Value		
HIIPS		Telnet Service	0	Disabled		
Access Control List	~	Login Authentication List	D	Default		
MAC Address Table	~	Enable Authentication List	D	Default		
	~	EXEC Accounting List	D	Default		
LLDT		Service Timeout	1	0		٧

Telnet Service: Set to disable or enable.

**Login Authentication List:** Select one of the Login Authentication Lists configured on the Login List page.

**Enable Authentication List:** Select one of the Enable Authentication Lists configured on the Enable List page.

**EXEC Authorization List:** Select one of the EXEC Authorization Lists configured on the EXEC List page.

**Commands Authorization List:** Select one of the Commands Authorization Lists configured on the Commands List page.

**EXEC Accounting List:** Select one of the EXEC Accounting Lists configured on the Accounting List page.

**Session Timeout:** Set the session timeout minutes for user access to CLI from the Telnet line. If a user does not respond before the session times out, CLI will log out automatically.

#### 4.8.8.3 HTTP

To display the HTTP page, click **Security > Access > http.** 

This page allows you to combine all kinds of AAA lists to the HTTP line. Attempts to access the switch's Web UI from HTTP will be authenticated by AAA lists combined here.

SAVE   LOGOUT   REBOOT   REFRESH						
System	~ ^	A UTTP Sattings				
Port Management	~					
Link Aggregation	~					
VLAN	~	HTTP Settings				
Spanning Tree	~	HTTP Service	Enabled Obisabled			
Multicast	~	Login Authentication List	Default			
QoS	~	Session Timeout	10 (0-86400) minutes			
Security	~					
Storm Control	Þ	Apply				
802.1X	Þ					
DHCP Snooping	Þ	<ul> <li>HTTP Information</li> </ul>				
Port Security	Þ					
TACACS+ Server	v	Information Name		Information Value		
Radius Server		HTTP Service		Enabled		
Access	Þ	Login Authentication List		Default		
Console		Session Timeout		10		
Telnet		L				
HTTP						
HTTPS						
Access Control List	~					
MAC Address Table	~					
LLDP						

HTTP Server: Set to disable or enable.

**Login Authentication List:** Select one of the login authentication lists we configured in "Login List" page.

**Session Timeout:** Set session timeout minutes for user access WEB from HTTP protocol. If user does not response after session timeout minute, WEBUI will logout automatically. 0 minutes means "Never timeout."

## 4.8.8.4 HTTPS

To display the HTTPS page, click **Security > Access > HTTPS**.

This page allows you to combine all kinds of AAA lists on the HTTPS line. Attempts to access the switch's Web UI from HTTPS will be authenticated by AAA lists combined here.

SAVE   LOGOUT   REBO	DT   REFRE:	SH					
System	~ ^	HTTPS Settings					
Port Management	~						
Link Aggregation	▽	UTTDS Settings					
VLAN	~	HTTP 3 Settings					
Spanning Tree	~	HTTPS Service	OEnabled  Disabled				
Multicast	~	Login Authentication List	Default 🛩				
QoS	~	Session Timeout	10 (0-86400) minutes				
Security	~						
802.1X DHCP Snooping Port Security	Þ ≡ Þ	▼ HTTPS Information					
AAA	D	Information Name		Information Value			
TACACS+ Server		HTTPS Service		Disabled			
Radius Server	b	Login Authentication List		Default			
Console	ľ	Session Timeout		10			
HTTP							
HTTPS							
Access Control List	~						
MAC Address Table	~						

HTTPS Server: Set to disable or enable.

**Login Authentication List:** Select one of the Login Authentication Lists configured on the Login List page.

**Session Timeout:** Set the session timeout minutes for user access via the HTTPS protocol. If a user does not respond before the session times out, Web UI will log out automatically. 0 minutes means "Never timeout."

# **4.9 Access Control List**

## 4.9.1 MAC-Based ACL

To display the MAC-Based ACL page, click Access Control List > MAC-Based ACL.

This page allows you to set a name for MAC-Based ACL.

SAVE   LOGOUT   REBOOT	r   REFI	RESH
System	~	MAC-Based ACL
Port Management	~	
Link Aggregation	~	IMC Prood ACL
VLAN	~	
Spanning Tree	~	ACL Name
Multicast	~	Add
QoS	~	
Security	~	
Access Control List	~	← ACL Table
MAC-Based ACI		ACL Name Delete
MAC-Based ACE		
IPv4-Based ACL		
IPv4-Based ACE		
ACL Binding		
MAC Address Table	~	
LLDP	~	
Diagnostics	~	
RMON	~	
Maintenance	~	

ACL Name: Enter an ACL name in this field.

## 4.9.2 MAC-Based ACE

To display the MAC-Based ACE page, click **Access Control List > MAC-Based ACE**. This page allows you to set the Based-on-MAC-address Expanding ACL List, matching corresponding MACs and setting the ports as drop or forward.

SAVE   LOGOUT   REBOC	T   REFI	ESH		
System	~	MAC-Based ACE		
Port Management	~			
Link Aggregation	~	MAC-Based ACE		
VLAN	~	ACL Name	×	
Spanning Tree Multicast	4	Sequence	(Range: 1 - 2147483647, 1 is first processed)	
QoS Security	4	Action	Permit     Deny	
Access Control List	~	DA MAC	● Any ○ User Defined	
MAC-Based ACE		DA MAC Value		
IPv4-Based ACL IPv4-Based ACE		DA MAC Mask	(0s for matching, 1s for no matching)	
ACL Binding MAC Address Table	~	SA MAC	● Any ○ User Defined	
LLDP	4	SA MAC Value		
Diagnostics	~	SA MAC Mask	(0s for matching, 1s for no matching)	
RMON	~	VLAN ID	(Range:1 - 4094)	
Maintenance	~	802.1p	🗌 Include	
		802.1p Value	(Range:0-7)	
		802.1p Mask		

# 4.9.3 IPv4-Based ACL

To display the IPv4-Based ACL page, click **Access Control List > IPv4-Based ACL**.

This page allows you to set a name for IPv4-Based ACL.

SAVE   LOGOUT   REBOO	I   KEH	
System	~	IPv4-Based ACL
Port Management	~	
Link Aggregation	~	IPv4.Rased AC1
VLAN	~	
Spanning Tree	~	
Multicast	~	Add
QoS	~	
Security	~	
Access Control List	~	* ACL Table
MAC-Based ACL		ACL Name Delete
MAC-Based ACL MAC-Based ACE		ACL Name Delete
MAC-Based ACL MAC-Based ACE IPv4-Based ACL		ACL Name Delete
MAC-Based ACL MAC-Based ACE IPv4-Based ACL IPv4-Based ACE	-	ACL Name Delete
MAC-Based ACL MAC-Based ACE IPv4-Based ACL IPv4-Based ACE ACL Binding	-	ACL Name Delete
MAC-Based ACL MAC-Based ACE IPv4-Based ACL IPv4-Based ACE ACL Binding MAC Address Table	Þ	ACL Name Delete
MAC-Based ACL MAC-Based ACE IPv4-Based ACL IPv4-Based ACE ACL Binding MAC Address Table LLDP	4	ACL Name Delete
MAC-Based ACL MAC-Based ACE IPv4-Based ACL IPv4-Based ACE ACL Binding MAC Address Table LLDP Diagnostics	4 4	ACL Name Delete
MAC-Based ACL MAC-Based ACE IPv4-Based ACL IPv4-Based ACE ACL Binding MAC Address Table LLDP Diagnostics RMON	a a a	ACL Name Delete
MAC-Based ACL MAC-Based ACE IPV-Based ACL IPV-Based ACL ACL Binding MAC Address Table LLDP Diagnostics RMON Maintenance	d d d d	ACL Name Delete

## 4.9.4 IPv4-Based ACE

To display the IPv4-Based ACE page, click **Access Control List > IPv4-Based ACE**.

This page allows you to set Based-on-IPv4 expanding ACL Peer Guardian and matching corresponding IP and setting the port as drop or forward.

SAVE   LOGOUT   REBOOT   R	FRESH		
System ▽	IPv4-Based ACE		
Port Management 🗢			
Link Aggregation 🗢	IPv4-Based ACE		
VLAN 🗸	ACL Name	~	
Spanning Tree ■ Multicast	Sequence	(Range: 1 - 2147483647, 1 is first processed)	
QoS <del>v</del>	Action	<pre>@ Permit O Deny</pre>	
Access Control List	Protocol	Any(IP)     Select from list comp     Protocol ID to match 1	
MAC-Based ACE IPv4-Based ACL IPv4-Based ACE	Source IP Address	● Any ○ User Defined	
ACL Binding	Source IP Address Value		
MAC Address Table 👳	Source IP Wildcard Mask	(0s for matching, 1s for no matching)	
LLDP 🗢 Diagnostics 🗢	Destination IP Address	● Any ○ User Defined	
RMON -	Destination IP Address Value		
Maintenance 🗢	Destination IP Wildcard Mask	(0s for matching, 1s for no matching)	
	Source Port	Any     Single     (Range: 0 - 65535)     Range     (0 - (65535)     (Range: 0 - 65535)	

# 4.9.5 ACL Binding

To display the ACL Binding page, click **Access Control List > ACL Binding**.

This page allows you to establish Binding in accordance with ACL rules.

SAVE   LOGOUT   REBOOT   REFRESH							
System	~	ACL Binding					
Port Management	~						
Link Aggregation	~	ACL Binding					
VLAN	~	Binding Port	ACL Select				
Spanning Tree	~						
Multicast	~		MAC-Based ACL				
QoS	~	Select Ports 👻	IPv4-Based ACL				
Security	~		IPv6-Based ACL				
Access Control List	~			•			
MAC-Based ACL		Apply					
MAC-Based ACE							
IPv4-Based ACL		* ACL Binding Table					
IPv4-Based ACE	_	Acc only rubit					
ACL Binding		Port	MAC ACL	IPv4 ACL	IPv6 ACL	Modify	
MAC Address Table	~						
LLDP	~						
Diagnostics	~						
RMON	~						
Maintenance	▽						

# 4.10 MAC Address Table

# 4.10.1 Static MAC Setting

To display the Static Mac Setting page, click **Mac Address Table > Static Mac Setting.** 

SAVE   LOGOUT   REBOOT   REFRESH									
System 🗢	Static MAC								
Port Management 🗢									
Link Aggregation 🗢	Static MAC Settin	a							
VLAN 🗸	MAC Address	Port	VLAN						
Spanning Tree 🗢 🗢	00.00.00.00.00	051	Default/1)						
Multicast 🗢	00.00.00.00.00		Deladit(1)						
Qo S 🗢	Add								
Security 🗢									
Access Control List 🛛 🗢									
MAC Address Table 🗢	Static MAC Statu	15							
Static MAC Setting	No. M	AC Address		Port	VLAN	Delete			
MAC Filtering	1 DI	E:AD:BE:EF:01:02		CPU	Default(1)				
Dynamic Address Setting Dynamic Learn									
RMA Setting									
LLDP 🗢									
Diagnostics 🗢									
RMON -									
Maintonanoo									

**MAC Address:** The MAC address to which packets will be statically forwarded. If Type is unicast, enter unicast MAC address in this field; If Type is multicast, enter multicast MAC address in this field.

**Port:** If Type is unicast, select the port number of the MAC entry; If Type is multicast, select the port list of the MAC entry.

VLAN: The VLAN ID number of the VLAN on which the above MAC address resides.

## 4.10.2 MAC Filtering

To display the MAC Filtering page, click Mac Address Table > MAC Filtering.

	. I men					
Syste m	~	MAC Filterin	a			
Port Management	~		<b>5</b>			
Link Aggregation	~	MAC Filtering Setti	na			
VLAN	~	MAC Address	VLAN (1~4094)			
Spanning Tree	~	00.00.00.00.00.00	1			
Multicast	~					
QoS	~	Add				
Security	~					
Access Control List	~					
MAC Address Table	~	<ul> <li>Static MAC Status</li> </ul>				
Static MAC Setting	_	No.	MAC Address	VLAN	Action	
MAC Filtering						_
Dynamic Address Set	tting					
Dynamic Learn						
RWA Setting	_					
LLDP	4					
Diagnostics	~					
RMON	~					
Maintenance	~					

**MAC Address:** The MAC address to which packets will be filtered. This must be a unicast MAC address.

VLAN: The VLAN ID number of the VLAN on which the above MAC address resides.

# 4.10.3 Dynamic Address Setting

To display the Dynamic Address Setting page, click **Mac Address Table > Dynamic Address Setting.** 

This page is used to set the MAC address of the aging time to study.

System	~	Dynamic Address Setting				
Port Management	~	•				
Link Aggregation	~	Dynamic Address Setting				
VLAN	~	Dynamic Address Setting				
Spanning Tree	~	Aging Time 300 (Range: 10 - 630)				
Multicast	~	Apply				
QoS	~					
Security	~					
Access Control List	~	<ul> <li>Dynamic Address Status</li> </ul>				
MAC Address Table	~	Information Name	Information Value			
Static MAC Setting		Aging time	300			
MAC Filtering	_					
Dynamic Address Set	ting					
Dynamic Learn						
RWA Setting						
LLDP	~					
Diagnostics	~					
PMON	-					
Raion						

Aging Time: Set the time needed for aging.

# 4.10.4 Dynamic Learn

To display the Dynamic Learn page, click Mac Address Table > Dynamic Learn.

SAVE   LOGOUT   REBOOT   REFRESH							
System 🗢	Dynamic Learned						
Link Aggregation 🗢	□ Port GE1 ▼						
VLAN <del>♥</del> Spanning Tree ♥							
Multicast ⊽ QoS ⊽	View Clear						
Security $\bigtriangledown$ Access Control List $\bigtriangledown$							
MAC Address Table 🗢	MAC Address Information						
MAC Filtering	MAC Address	VLAN	Туре	Port			
Dynamic Address Setting	50:E5:49:67:F9:B3	Default(1)	Dynamic	GE3	Add to Static MAC table		
Commerce Cean       RMA Setting       LLDP   Total Entries:1							
Diagnostics ⊽ RMON ⊽ Maintenance ⊽							

Port: Select the port number to show or clear dynamic MAC entries. If not selecting any port, VLAN or MAC address, the whole dynamic MAC table will be displayed or cleared.
VLAN: Select the VLAN to show or clear dynamic MAC entries. If not selecting any port, VLAN or MAC address, the whole dynamic MAC table will be displayed or cleared.
MAC Address: Select the MAC address to show or clear dynamic MAC entries. If not selecting any port, selecting any port, VLAN or MAC address, the whole dynamic MAC table will be displayed or cleared.
# 4.10.5 RMA Setting

To display the RMA Setting page, click **Mac Address Table > RMA Setting.** 

SAVE   LOGOUT   REBOUT   REI	RESH			
System 🗢	Reserved MAC Add	esses		
Port Management 🗢				
Link Aggregation 🗢	Reserved MAC Addresses S	setting		
VLAN 🗢	MAC Address	Select MAC Address		
Spanning Tree 🗢 🗢				
Multicast 🗢	Action	⊖Peer ●Bridge ○Discard		
QoS 🗢	- Anatolia			
Security 🗢	Арріу			
Access Control List 🗢				
MAC Address Table 🛛 🗢	<ul> <li>Reserved MAC Addresses</li> </ul>	Config		
Static MAC Setting	MAC Address		Action	Delete
MAC Filtering				
Dynamic Address Setting				
Dynamic Learn				
RMA Setting				
LLDP 🗢				
Diagnostics 🗢 🗢				
RMON 🗢				
Maintenance 🗢 🗢				

# 4.11 LLDP

LLDP is a one-way protocol; there are no request/response sequences. Information is advertised by stations implementing the transmit function, and is received and processed by stations implementing the receive function.

# 4.11.1 LLDP Global Setting

To display the LLDP Global Settings page, click LLDP > LLDP Global Setting.

SAVE   LOGOUT   REBOOT   R	RESH	
System 🗸	LIDE Global Setting	<u>^</u>
Port Management 🗢	LEDI Global Setting	
Link Aggregation 🗢	LI DP Global Settings	
VLAN 🗢	Enabled	Ind @ Disabled
Spanning Tree 🗢 😎		
Multicast 🗢	LLDP PDU Disable Action OFilte	ing O Bridging @ Flooding
QoS 🗢	Transmission Interval 30	(5-32768)
Security 🗢	Holdtme Multiplier 4	(2-10)
Access Control List 🗢	Reinitialization Delay 2	(1-10)
MAC Address Table 🗢	Transmit Delay	4 9400
LLDP 🗢		
LLDP Global Setting	LLDP-MED Fast Start Repeat Count 3	(1-10)
LLDP Port Setting	Analy	
LLDP Local Device	Арріу	
LLDP Remote Device		
MED Network Policy	✓ LLDP Global Config	
LLDP Overloading		~
LLDP Statistics	Config Name	Config Value
	LLDP Enabled	Disabled
Diagnostics 🗢	LLDP PDU Disable Action	Flooding
RMON 🗢	Transmission Interval	30 Secs
Maintenance 🗢	Holdtme Multiplier	4

Enabled: Enable/Disable the LLDP protocol on this switch.

**Transmission Interval:** Select the interval at which frames are transmitted. The default is 30 seconds, and the valid range is 5-32768 seconds.

**Holdtime Multiplier:** Select the multiplier on the transmit interval to assign to TTL (range 2-10, default = 4).

**Reinitialization Delay:** Select the delay before a re-initialization (range 1-10 seconds, default = 2).

## 4.11.2 LLDP Port Setting

To display the LLDP Port Settings page, click LLDP > LLDP Port Setting.

SAVE   LOGOUT   REBOOT   REF	RESH			
System <del>⊽</del> Port Management ⊽	LLDP Port Se	etting		^
Link Aggregation ♥ VLAN ♥ Spanning Tree ♥ Multicast ♥	LLDP Port Configur Port Select Select Ports	State Disable		
QoS     マ       Security     マ       Access Control List     マ	Apply	ction		
MAC Address Table ↓ LLDP	Port Select Select Ports	Optional TLV Select Select Optional TLVs	▼	
LLDP Global Setting LLDP Port Setting LLDP Local Device LLDP Remote Device	Apply		-	
MED Network Policy MED Port Setting	▼ LLDP Port Status			
LLDP Overloading LLDP Statistics	Port GE1	State TX & RX	Selected Optional TLVs 802.1 PVID	
Diagnostics 🗢 🗢	GE2	TX & RX	802.1 PVID	
RMON 🗢	GE3	TX & RX	802.1 PVID	
Maintenance 🗢	GE4	TX & RX	802.1 PVID	
	GE5	TX & RX	802.1 PVID	v

Port Select: Select a specific port or all ports to configure transmission state.

State: Select the transmission state of the LLDP port interface.

- $\ell\,$  Disable: Disable the transmission of LLDP PDUs.
- $\ell$  RX Only: Receive LLDP PDUs only.
- e TX Only: Transmit LLDP PDUs only.
- *e* TX And RX: Transmit and receive LLDP PDUs both Select specified port or all port configure transmission state.

Port Select: Select specific ports.

Optional TLV Select: Select Optional TLVs.

### 4.11.3 LLDP Local Device

To display the LLDP Local Device page, click LLDP > LLDP Local Device.

Use the LLDP Local Device page to view information about devices on the network for which the switch has received LLDP information.

SAVE   LOGOUT   REBOOT	r   REFI	RESH											
Syste m	~	LLDP	Local Device				^						
Port Management	~												
Link Aggregation	~												
VLAN	~	▼ Local De	Local Device Summary										
Spanning Tree	~	Chassis I	Chassis ID Subtype MAC Address										
Multicast	~	Chassis I	ID		DE:AD:BE:EF:01:02								
QoS	~	System M	lame		Switch								
Security	~	System [	Description		V1								
Access Control List	~	Capabilit	ies Supported		Bridge	Bridge							
MAC Address Table	~	Capabilit	ies Enabled		Bridge								
LLDP	~	Port ID S	ubtype		Interface name								
LLDP Global Setting							~						
LLDP Port Setting	_	<				>							
LLDP Local Device													
MED Network Policy		· Port Stat	us										
MED Port Setting			_				^						
LLDP Overloading		Detail											
LLDP Statistics			Interface	LLDP Status	LLDP Med Status								
Diagnostics	~	0	GE1	TX & RX	Enabled	N/A							
RMON	~	0	GE2	TX & RX	Enabled	N/A							
Maintenance	~	0	GE3	TX & RX	Enabled	N/A							
							~						

## 4.11.4 LLDP Remote Device

To display the LLDP Remote Device page, click **LLDP > LLDP Remote Device.** 

Use the LLDP Remote Device page to view information about remote devices for which the switch has received LLDP information.

SAVE   LOGOUT   REBOOT	REFR	ESH					
Syste m	~	LLDP Remote Device					
Port Management	~						
Link Aggregation	~						
VLAN		▼ LLDP Remote Device					
Spanning Tree	~						
Multicast	~	Detail Delete Refresh					
QoS	~	Sel Local Port Chassis ID Subtype	Chassis ID	Port ID Subtype	Port ID	System Name	Time to Live
Security	~						
Access Control List	~						
MAC Address Table	~						
LLDP	~						
LLDP Global Setting							
LLDP Port Setting							
LLDP Local Device							
LLDP Remote Device							
MED Network Policy							
MED Port Setting							
LLDP Overloading							
LLDP Statistics							
Diagnostics	~						
RMON	~						
Maintenance	~						

# 4.11.5 MED Network Policy

To display the MED Network Policy page, click LLDP > MED Network Policy.

SAVE   LOGOUT   REBOOT	REFI	ESH												
Syste m	~	LLDP MED Network Policy Set	tina						^					
Port Management	~													
Link Aggregation	~	Voice Auto Mode Configuration												
VLAN	~	LIDE MED Believ for Voice A												
Spanning Tree	▽		prication	@Auto OMan	uai									
Multicast	~	Apply												
QoS	~													
Security	~	Network Policy Configuration												
Access Control List	~	Network Policy Number	1 ~											
MAC Address Table	~	Application	Voice	*										
LLDP	~	NI AN ID												
LLDP Global Setting		VEAN ID	(1-4095)											
LLDP Port Setting		VLAN Tag	●Tagged ○Untagged											
LLDP Local Device		L2 Priority	0 (0-7)											
MED Network Policy		DSCP Value	0 (0-63)											
MED Port Setting														
LLDP Overloading		Apply												
	_													
Diagnostics	~	LLDP MED Network Policy Table												
Maintenance	~	Delete						^						
maintenance	~	Delete												
		Network Policy Number	Application	VI AN ID	VI AN Teg	12 Priority	DSCP Value		~					

## 4.11.6 MED Port Setting

To display the MED Port Setting page, click LLDP > MED Port Setting.

SAVE   LOGOUT   REBOOT   REFRESH													
Syste m	~	LLDP Port ME	LLDP Port MED Setting										
Port Management	~		· · · · · · · · _ · · · · · · · ·										
Link Aggregation	~	Port LL DR MED. Cor											
VLAN	~	Port Select	For LDF MED Colling utation										
Spanning Tree	₽	Solort Ports	Tashia a	Salact Optional J		Select Ontional TLVs	-						
Multicast	~	Select Ports	Enable 🎽	Select Optional 1	LVS *	select Optional TLVs							
QoS	~	Apply											
Security	~												
Access Control List	₽												
MAC Address Table	~	▼ LLDP MED Port Set	tting Table										
LLDP	~		77 (1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.		User Defined Netwo	ork Policy							
LLDP Global Setting		Interface	LLDP MED State	15	Active	Application	Location	Inventory					
LLDP Port Setting		GE1	Enabled		Yes		No	No					
LLDP Local Device		GE2	Enabled		Yes		No	No					
MED Network Policy		GE3	Enabled		Yes		No	No					
MED Port Setting		GE4	Enabled		Yes		No	No					
LLDP Overloading		GE5	Enabled		Yes		No	No					
LLUP Statistics	_	GE6	Enabled		Yes		No	No					
Diagnostics	~	GE7	Enabled		Yes		No	No					
RMON	~	GE8	Enabled		Yes		No	No					
Maintenance	~	GE9	Enabled		Yes		No	No		~			
		<							>				

## 4.11.7 LLDP Overloading

To display the LLDP Overloading page, click LLDP > LLDP Overloading.

SAVE   LOGOUT   REBOOT	REFI	RESH															
Syste m	~			ort O	erloa	dina											^
Port Management	~																
Link Aggregation	~			o 1													
VLAN	▽		DP Port	Overioa	iding la	adie										^	
Spanning Tree	~						Status										
Multicast	▽			Total	Left to	C				MED	MED						
QoS	~		nterrace	(Bytes)	(Bytes)	Status	Mandatory TLVs	MED Canabilities	MED	Network	Extended	802.3 TLVs	Optional TLVs	MED	802.1 TLVs		
Security	~									Policy	via MDI			,			
Access Control List	~	G	E1	62	1426	Not	21	9		10			14		8		
MAC Address Table	~					Overloading	(Transmitted)	(Transmitted)		(Transmitted)			(Iransmitted)		(Transmitted)		
LLDP	~	G	BE2	62	1426	Not Overloading	21 (Transmitted)	9 (Transmitted)		10 (Transmitted)			14 (Transmitted)		8 (Transmitted)		
LLDP Global Setting LLDP Port Setting		G	E3	62	1426	Not Overloading	21 (Transmitted)	9 (Transmitted)		10 (Transmitted)			14 (Transmitted)		8 (Transmitted)		
LLDP Local Device LLDP Remote Device		G	BE4	62	1426	Not Overloading	21 (Transmitted)	9 (Transmitted)		10 (Transmitted)			14 (Transmitted)		8 (Transmitted)		
MED Network Policy MED Port Setting		G	SE5	62	1426	Not Overloading	21 (Transmitted)	9 (Transmitted)		10 (Transmitted)			14 (Transmitted)		8 (Transmitted)		
LLDP Overloading LLDP Statistics		G	BE6	62	1426	Not Overloading	21 (Transmitted)	9 (Transmitted)		10 (Transmitted)			14 (Transmitted)		8 (Transmitted)		
Diagnostics	~	G	E7	62	1426	Not Overloading	21 (Transmitted)	9 (Transmitted)		10 (Transmitted)			14 (Transmitted)		8 (Transmitted)		
RMON Maintenance	▼ ▼	G	E8	62	1426	Not Overloading	21 (Transmitted)	9 (Transmitted)		10 (Transmitted)			14 (Transmitted)		8 (Transmitted)		
		G	E9	62	1426	Not	21	9		10			14		8		~

Total (Bytes): Total number of bytes of LLDP information in each packet.

**Left to Send (Bytes):** Total number of available bytes left for additional LLDP information in each packet.

Status: Whether TLVs are being transmitted or if they are overloaded.

## 4.11.8 LLDP Statistics

To display the LLDP Statistics page, click LLDP > LLDP Statistics.

SAVE   LOGOUT   REBOOT   REFRESH														
System	~		LLDP Statistics											
Port Management	~													
Link Aggregation	~													
VLAN	~	✓ LLDP GIO	LLDP Global Statistics											
Spanning Tree	~													
Multicast	~	Clear	Clear Refresh											
QoS	~	Insertions	5						0					
Security	~	Deletions							0					
Access Control List	▽	Drops							0					
MAC Address Table	▽	Age Outs	Age Outs 0											
LLDP	~									~				
LLDP Global Setting		<												
LLDP Port Setting		▼ LLDP Por	t Statistics											
LLDP Remote Device														
MED Network Policy		Port	TX Frames	RX Frame	s		RX TLVs		RX Ageouts					
MED Port Setting			Total	Total	Discarded	Errors	Discarded	Unrecognized	Total					
LLDP Overloading	_	GE1	0	0	0	0	0	0	0					
LLDP Statistics		GE2	0	0	0	0	0	0	0					
Diagnostics	~	GE3	0	0	0	0	0	0	0					
RMON	~	GE4	0	0	0	0	0	0	0					
Maintenance	~	GE5	0	0	0	0	0	0	0					
		GE6	0	0	0	0	0	0	0		~			

#### Tx Frames

Total: Number of transmitted frames.

## **Rx Frames**

Total: Number of received frames.

Discarded: Total number of received frames that were discarded. Errors: Total number of received frames with errors.

### **Rx** TLVs

Discarded: Total number of received TLVs that were discarded.

Unrecognized: Neighbor's Information Deletion Count.

### **Rx** Ageouts

Total: Number of neighbor ageouts on the interface.

# 4.12 Diagnostics

Use the Diagnostics pages to configure settings for the switch diagnostics feature or operating diagnostic utilities.

## 4.12.1 System Status

To display the System Status Log page, click **Diagnostics > System Status**.

This page is used to display the state of the system operation, CPU resource utilization, used memory and free memory rate, and set the refresh time.

SAVE   LUGUUT   REBUG	JI   REF	RESH		
Syste m	~	CPU And Memo	ry Information	
Port Management	~		,	
Link Aggregation	~	CPU MEM_USED	MEM_FREE	Refresh period: 5 💌 sec
VLAN	~			
Spanning Tree	~			
Multicast	~			
QoS	~			
Security				
Access Control List	~			
MAC Address Table	~			
LLDP	~			
Diagnostics	~	CPU	USED	FREE
System Status		4.470	14.1%	20.3%
Ping Test				
RMON	~			
Maintenance	~			

## 4.12.2 Ping Test

To display the Ping Test Log page, click **Diagnostics > Ping Test.** 

SAVE   LOGOUT   REBOO	T   REFR	RESH	
Syste m	~	Pin	n Teet
Port Management	~		, 100
Link Aggregation	~	Ding Tee	A 5-111-2
VLAN	~	Fing res	l setting
Spanning Tree	~	Address	192.168.1.100 (x.x.x.x or hostname)
Multicast	~	Count	4 (1-5   Default : 4 )
QoS	~	Interval	
Security	~	(in sec)	1 (1-5   Default : 1 )
Access Control List	~	Size (in bytes)	56 (8 - 5120   Default : 56 )
MAC Address Table	~		
LLDP	~		
Diagnostics	~		
System Status			
Ping Test		Ping	
RMON	~	Results	
Maintenance	~		
		_	
		Apply	

**IP Address:** The IP address of a ping target.

Count: How many times to send a ping request packet.

Interval: Time interval between each ping request packet.

Size: The size of a ping packet.

Ping Results: After a ping is finished, results will show in this field.

# 4.13 RMON

## 4.13.1 RMON Statistics

To display the RMON Statistics page, click **RMON > RMON Statistics**.

The Statistics page displays detailed information regarding packet sizes and information regarding physical layer errors. The information displayed is according to the RMON standard.

SAVE   LOGOUT   REBOOT	r   Ref	RESH		
System	~	RMON Statistics		^
Port Management	~			
Link Aggregation	~			
VLAN	~	Port GE1 RMON Statistics		
Spanning Tree	~	Port CE1 V Clear		
Multicast	~	RMON MIB Name	Value	
Security	-	etherStatsDropEvents	0	
Access Control List		etherStatsOctets	0	
Access Control List	•	etherStatsPkts	0	
MAC Address Table	~	etherStatsBroadcastPkts	0	
LLDP	•	etherStatsMulticastPkts	0	
Diagnostics	~	etherStatsCRCAlignErrors	0	
RMON	~	etherStatsUnderSizePkts	0	
RMON Statistics		etherStatsOverSizePkts	0	
RMON Event		etherStatsFragments	0	
RMON Alarm		etherStatsJabbers	0	
RMON History		etherStatsCollisions	0	
RMON History Log		etherStatsPkts64Octets	0	
Maintenance	~	etherStatsPkts65to127Octets	0	
		etherStatsPkts128to255Octets	0	
		etherStatsPkts256to511Octets	0	
				~

## 4.13.2 RMON Event

To display the RMON Event page, click RMON > RMON Event.

This page is used to configure RMON event groups.

SAVE   LOGOUT   REBOOT	REFR	ESH	_						
Syste m	~	RMON Event							
Port Management	~								
Link Aggregation	▽	RMON Event Settings							
VLAN	▽	Select Index	Create New	~					
Spanning Tree	~	Index	0						
Multicast		Index	U	(1-65535)					
QoS	~	Туре	None	*					
Security	~	Community	public	~					
Access Control List	▽	Owner		(0~31 Charactors)					
MAC Address Table	~				1000				
LLDP	~	Description			~				
Diagnostics	~				(0~127 Charactors)				
RMON	~								
RMON Statistics		Арріу							
RMON Event									
RMON Event Log		▼ RMON Event							
RMON Alarm									
RMON History		Index	Event Type	Community	Description	Last Sent Time	Owner	Action	
RMON History Log									
Maintenance	~								

## 4.13.3 RMON Event Log

To display the RMON Event Log page, click **RMON > RMON Event Log.** 

The Event Log Table page displays the log of events (actions) that occurred. Two types of events can be logged: Log or Log and Trap. The action in the event is performed when the event is bound to an alarm (see the Alarms page) and the conditions of the alarm have

#### occurred.

SAVE   LOGOUT   REBOO	T   REF	ESH				
System	~	RMON Even	Log			
Port Management	~					
Link Aggregation	~					
VLAN	~	▼ RMON Event Log	Table			
Spanning Tree	~	Event Index Sele	ct Event 🗸			
Multicast	~			12/04/04/04		August 102 No. 105 No. 1
QoS	~	Index	Alarm Index	Action	Log Time	Description
Security	~					
Access Control List	~					
MAC Address Table	~					
LLDP	~					
Diagnostics	~					
RMON	~					
DMON OF HERE						
RMON Statistics						
RMON Event Log						
RMON Alarm						
RMON History						
RMON History Log						
Maintenance	~					

### 4.13.4 RMON Alarm

To display the RMON Alarm page, click **RMON > RMON Alarm.** 

This page is used to configure RMON statistics group and alarm groups.

System	~		
Port Management	~	RMON Alarm	
Link Aggregation	~	DMON Alarm Cattings	
VLAN	~	RMON Alarm Settings	
Spanning Tree	~	Select Index	Create New Y
Multicast	~	Index	0 (1-65535)
QoS	~	Sample Port	GE1 v
Security	▽	Sample Variable	DropEvents
Access Control List	~	Sample Interval	0 (1-2147483647)
MAC Address Table	~	Sample Type	Oabsolute Odelta
Diagnostics		Rising Threshold	0 (0-2147483647)
RMON	~	Falling Threshold	0 (0-2147483647)
RMON Statistics		Rising Event	0: None (Unassigned)
RMON Event		Falling Event	0: None (Unassigned)
RMON Alarm		Owner	(0~31 Charactors)
RMON History RMON History Log		Apply	
Maintenance	~		

### 4.13.5 RMON History

To display the RMON History page, click **RMON > RMON History.** 

This page is used to configure the RMON history group.

SAVE   LOGOUT   REBOOT   REFRESH								
Syste m	~	RMON History						
Port Management	~							
Link Aggregation	~	DNON Ulatara Astronom						
VLAN	~	RMON History Settings	1			-		
Spanning Tree	~	Select Index	Create New	*				
Multicast	~	Index	0	(1-65535)				
QoS	~	Sample Port	GE1	~		1		
Security	~	Bucket Requested	50	(1-65535, Default 50)		1		
Access Control List	~	Interval	1800	(1-3600 Default 1900)				
MAC Address Table	~			(1-3000 Delaut 1000)		-		
LLDP	~	Owner		(0~31 Charactors)				
Diagnostics	~							
RMON	~	Арріу						
RMON Statistics								
RMON Event		<ul> <li>RMON History</li> </ul>						
RMON Event Log								
RMON Alarm		Index Data Source	Bi	ucket Requested	Inte	rval Owne	er Action	
RMON History								
RMON History Log								
Maintenance	~							

**Index:** Displays the number of the new History Table entry.

Sample Port: Select the port of switch.

Bucket Requested: Enter the number of samples to store.

**Interval:** Enter the time in seconds that samples are collected from the ports. The field range is 1-3600.

**Owner:** Enter the RMON station or user that requested the RMON information.

### 4.13.6 RMON History Log

To display the RMON History Log page, click **RMON > RMON History Log.** 

The RMON History Log Table page displays interface-specific statistical network samplings. The samples were configured in the History Control table described above.

SAVE   LOGOUT   REBOO	T   REFI	KE SH
Syste m	~	RMON History Loa
Port Management	~	
Link Aggregation		
VLAN	▽	* KMON HIStory Log Table
Spanning Tree	~	History Index Select History 💌
Multicast	~	No data available
QoS	~	nu uata avanapie:
Security	⊽	
Access Control List	▽	
MAC Address Table	▽	
LLDP	▽	
Diagnostics	~	
RMON	~	
RMON Statistics RMON Event RMON Event Log		
RMON History		
RMON History Log		
Maintenance	~	

## 4.14 Maintenance

Use the Maintenance pages to configure settings for the switch network interface and how the switch connects to a remote server to get services.

## 4.14.1 Factory Default

To display the Factory Default page, click Maintenance > Factory Default.

This page allows you to restore factory defaults by clicking the Restore button.

SAVE   LOGOUT   REBOO	T   REF	KESH
Syste m		Factory Default
Port Management	~	
Link Aggregation	~	
VLAN	~	Restore
Spanning Tree	~	
Multicast	~	
QoS	~	
Security	~	
Access Control List	~	
MAC Address Table	~	
LLDP	~	
Diagnostics	~	
RMON	~	
Maintenance	~	
Eactory Default		
Reboot Switch		
Backup Manager		
Upgrade Manager		
Configuration Manage	r	
Enable Password		

### 4.14.2 Reboot Switch

To display the Reboot Switch page, click **Maintenance > Reboot Switch**.

This page allows you to reboot the switch by clicking the Reboot button.



### 4.14.3 Backup Manager

To display the Backup Manager page, click **Maintenance > Backup Manager**.

This page allows you to back up the firmware image or configuration file on the switch to a remote TFTP server or host file system via the HTTP protocol.

SAVE   LOGOUT   REBOOT   REFRESH		
System		
Port Management		
VIAN Backup Manager		
Spanning Tree V	TFTP	
Multicast V Server IP		
QoS V	() Image	
Security V	Startup configuration	
Access Control List	Backup configuration     Elab lase	
MAC Address Table 🗢	O Buffer log	
LLDP		
Diagnostics 🗸 Backup		
RMON 🗢		
Maintenance 🗢		
Factory Default		
Reboot Switch		
Backup Manager		
Upgrade Manager		
Configuration Manager		
SAVE   LOGOUT   REBOOT   REFRESH		
save   LOGOUT   REBOOT   REFRESH System ▽ Backup Manager		-
save   LOGOUT   REBOOT   REFRESH System マ Port Management マ		
SAVE   LOGOUT   REBOOT   REFRESH		
SAVE   LOGOUT   REBOOT   REFRESH	HTTP	
SAVE   LOGOUT   REBOOT   REFRESH	MITP V Olimans	
SAVE   LOGOUT   REBOOT   REFRESH	HTTP © Image O Startup configuration	
SAVE   LOGOUT   REBOOT   REFRESH	Gimage Startup configuration Backup configuration	
SAVE LOGOUT REBOOT REFRESH	EITP © Image O Startup configuration O Backup configuration O Finh log Butter ion	
SAVE LOGOUT REBOOT REFRESH	Image           Startup configuration           Backup configuration           Fiah log           Buffer log	
SAVE LOCOUT REBOOT REFRESH	ETTP           @Image           Ostartup configuration           Ostartup configuration	
SAVE LOCOUT REBOOT REFRESH	ITTP           © Image           O Startup configuration           D Backup configuration           O Flah Tog           O Butter Tog	
SAVE LOGOUT REDOOT REJRESH System   Port Management   Port Management   Link Aggregation   VLAN   Spanning Tree   Multicast   GoS   Cos  Cos  Cos  Cos  Cos  Cos  Cos  Co	Image         Startup configuration         Backup configuration         Flah log         Butter log	
SAVE LOGOUT REBOOT REFRESH	EITTP © Image O Startup configuration O Backup configuration O Finh log O Butter log	
SAVE LOGOUT REBOOT REFERENCE System   Port Management   CLINK Aggregation   CULAN   Spanning Tree   Multicast   Cos  Security   Access Control List   MAC Address Table   LLDP   CRMON   Maintenance   CHARTER SAVE   Security   CHARTER SAVE   CHARTER SAVE  CHARTER SAVE   CHARTER SAVE   CHARTER SAVE   CHARTER SAVE   CHARTER SAVE  CHA	Image           Startup configuration           Backup configuration           Fish log           Butter log	
SAVE LOGOUT REBOOT REFRESS System   Port Management   Chick Aggregation   Chick Aggre	Image           Statup configuration           Backup configuration           Flah log           Butter log	
SAVE LOGOUT REBOOT REFRESH	Image           Image           Startup configuration           Backup configuration           Fina log           Buffer log	
SAVE LOGOUT REBOOT REFRESH	EITP © Image O Startup configuration O Backup configuration O Flah tog O Buffer log	
SAVE LOGOUT REBOOT REFRESH	ETTP © Image O Startup configuration O Backup configuration O Finh Tog O Butter log	

Backup Method: Select a backup method.

- ε TFTP: Use TFTP to backup.
- e HTTP: Use HTTP to backup.

**Server IP:** IP address of the TFTP server. If the TFTP backup method is selected, the IP address of the TFTP server must be assigned.

Backup Type: Select Backup Type.

### 4.14.4 Upgrade Manager

To display the Upgrade Manager page, click Maintenance > Upgrade Manager.

This page allows you to upgrade new firmware images or configuration files to the switch from a remote TFTP server or to select files using a Web browser.

SAVE   LOGOUT   REBOOT   REFRES	н		
System 🗢		r	
Port Management 🗢	opyrade manage		
Link Aggregation 🗢			
VLAN 🗢	Upgrade Manager		
Spanning Tree 🗢	Upgrade Method	d TFTP 💌	
Multicast 🗢	Server IP		
QoS 🗢	File Name		
Security 🗢		Image	
Access Control List 🗢	Upgrade Type	Startup Configuration	
MAC Address Table 🗢		O Backup Configuration	
LLDP 🗢	Upgrade		
Diagnostics 🗢	opgrade		
RMON 🗢			
Maintenance 🗢			
Factory Default			
Reboot Switch			
Backup Manager			
Configuration Manager			
Enable Password			
SAVE   LOGOUT   REBOOT   REFRESI	н		
SAVE   LOGOUT   REBOOT   REFRES	H Upgrade Manage	r	
SAVE   LOGOUT   REBOOT   REFRES System ▽ Port Management ▽	H Upgrade Manage	ır	
SAVE   LOGOUT   REBOOT   REFRES System $\heartsuit$ Port Management $\heartsuit$ Link Aggregation $൞$	H Upgrade Manage Upgrade Manager	ir	
SAVE   LOGOUT   REBOOT   REFRES System ♥ Port Management ♥ Link Aggregation ♥ VLAN ♥	H Upgrade Manage Upgrade Manager Upgrade Method	r ATTT	
SAVE   LOGOUT   REBOOT   REFRESS System Port Management Link Aggregation VLAN Spaning Tree VLAN Spaning Tree VLAN Spaning Tree VLAN VL	H Upgrade Manage Upgrade Manager Upgrade Method	Pr HTTP ♥ ⊛Image	
SAVE LOGOUT REBOOT REFRESS System   Port Management Link Aggregation VLAN  Spanning Tree Multicast Cos	H Upgrade Manage Upgrade Manager Upgrade Method Upgrade Type	HTTP V © Image Startop Configuration	
SAVE   LOGOUT   REBOOT   REFRES System   Port Management  Link Aggregation  VLAN  Spanning Tree  Multicast  Gos  Casuality	H Upgrade Manager Upgrade Manager Upgrade Method Upgrade Type	F HTTP © Image © Startup Configuration © Backup Configuration	
SAVE LOGOUT REBOOT REFRESS System  Port Management Link Aggregation V VLAN Spanning Tree V Multicast V OoS Security V	H Upgrade Manager Upgrade Manager Upgrade Method Upgrade Type Browse file	r HTTP ●Image ③ Startup Configuration ③ Backup Configuration ● Backup Configuration	
SAVE   LOGOUT   REBOOT   REFRESS System  Port Management  Link Aggregation  VLAN  VLAN  Spanning Tree  Multicast  QoS  Case  Security  Access Control List  Case	H Upgrade Manager Upgrade Manager Upgrade Method Upgrade Type Browse file	IT HTTP ● Image ○ Startup Configuration ● Backup Configuration ● Backup Configuration	
SAVE LOGOUT REBOOT REFRESS System  Port Management  System  VLAN  Spanning Tree  Multicast  Security  Access Control List  MAC Address Table  VLAP	H Upgrade Manager Upgrade Method Upgrade Type Browse file Upgrade	F HTTP ▼ @Image Startup Configuration ○ Backup Configuration ○ Restance (別版)	
SAVE LOGOUT REBOOT REFRESS System   Port Management  Link Aggregation  VLAN  Spanning Tree  Multicast  GoS  Cost	H Upgrade Manager Upgrade Manager Upgrade Method Upgrade Type Browse file Upgrade	HTTP ♥ ● Image ● Startup Configuration ● Backup Configuration ■ 微能	
SAVE LOGOUT REBOOT REFRESS System   Port Management  C Port Management  V Link Aggregation  V VLAN  Spanning Tree  V Multicast  V GoS  C Security  C Access Control List  V MAC Address Table  V LLDP  V Diagnostics  V HON  T	H Upgrade Manager Upgrade Manager Upgrade Method Upgrade Type Browse file Upgrade	F HTTP © Image Startup Configuration Backup Configuration REC	
SAVE   LOGOUT   REBOOT   REFRESS System  V Port Management  V Link Aggregation  V VLAN  V Spanning Tree  V Multicast  V GoS  C Security  V Access Control List  V LLDP  V Diagnostics  V RMON  V	H Upgrade Manager Upgrade Method Upgrade Type Browse file	r HTTP  ● Image ③ Image ③ Startup Configuration ③ Backup Configuration	
SAVE LOGOUT REBOOT REFRESS System  Port Management  Port Management  V Link Aggregation  V VLAN  Spanning Tree  V Multicast  V Access Control List  V Access Control List  V LLDP  V Diagnostics  V RMON  V Maintenance  V	H Upgrade Manager Upgrade Manager Upgrade Method Upgrade Type Browse file	r HTTP ●Image ③Image ③Startup Configuration Backup Configuration ■ Image ■	
SAVE LOGOUT REBOOT REFRESS System  Port Management  V Link Aggregation  V VLAN  V Spanning Tree  V Multicast  V Access Control List  V Access Control List  V MAC Address Table  V LLDP  Diagnostics  V RMON  V Maintenance  V Factory Default Pabod? Waith	H Upgrade Manager Upgrade Manager Upgrade Method Upgrade Type Browse file Upgrade	r HTTP ▼ @Image © Startup Configuration Backup Configuration ■ Image Ima	
SAVE       LOGOUT       REBOOT       REFRESS         System       >          Port Management       >          Link Aggregation       >          VLAN       >          Spanning Tree       >          Multicast       >          QoS       >          Security       >          Access Control List       >          Diagnostics       >          MAC Address Table       >          ILDP       >          Maintenance       >          Factory Default Rebots Switch Backup Manager       >	H Upgrade Manager Upgrade Manager Upgrade Method Upgrade Type Browse file Upgrade	F HTTP ▼ ◎ Image ③ Starup Configuration Backup Configuration 谜意	
SAVE   LOGOUT   REBOOT   REFRESS System   Port Management  Link Aggregation  V LINA  Spanning Tree  V Muticast  C OS  C OS C OS C OS C OS C OS C OS C	H Upgrade Manager Upgrade Method Upgrade Type Browse file	r HTTP  ● ● Image ● Startup Configuration ● Backup Configuration ● REC	
SAVE       LOGOUT       REBOOT       REFREST         System       V         Port Management       V         Link Aggregation       V         VLAN       V         Spanning Tree       V         Multicast       V         GoS       V         Access Control List       V         LLDP       V         Diagnostics       V         RMON       V         Factory Default       Rebot Switch         Backup Manager       Upgrade Manager         Upgrade Manager       Configuration Manager	H Upgrade Manager Upgrade Method Upgrade Type Browse file	r HTTP  ● Image ● Image ● Startup Configuration ● Backup Configuration ● 通販	

Upgrade Method: Select the upgrade method.

- $\ell$  TFTP: Use TFTP to upgrade.
- *e* HTTP: Use HTTP to upgrade.

**Server IP:** IP address of the TFTP server. If the TFTP upgrade method is selected, the IP address of the TFTP server must be assigned.

**File Name:** Firmware image or configuration file name on remote TFTP server. If the TFTP upgrade method is selected, the file name must be specified.

**Browse file:** If the HTTP upgrade method is selected, the browse file field allows you to select any file on the host operating system.

Upgrade Type: Select Backup Type.

### 4.14.5 Configuration Manager

To display the Configuration Manager page, click **Maintenance > Configuration Manager**.

SAVE   LOGOUT   REBOOT   REFRESH								
System	~	Configuration Manager						
Port Management								
Link Aggregation	~	Save Configuration						
VLAN	~	Source File	Running configuration					
Spanning Tree	~		Startup configuration					
Multicast	~	Destination File	O Backup configuration					
QoS	~							
Security	~	Apply						
Access Control List	~							
MAC Address Table	~							
LLDP	~							
Diagnostics	~							
RMON	~							
Maintenance	~							
Factory Default								
Reboot Switch								
Backup Manager								
Upgrade Manager								
Enable Password								
Chable Password								

### 4.14.6 Enable Password

To display the Enable Password page, click Maintenance > Enable Password.

This page allows you to modify the enable password. In the command line interface, you can use "enable" to change the privilege level to "Admin." After the "enable" command is issued, you need to enter the enable password to change the privilege level.

SAVE   LOGOUT   REBOO	T   REF	RESH								
Syste m	~	Enable Password								
Port Management	~									
Link Aggregation	▽	Setup Enable Password								
VLAN	~	Privilege Value	15 👻							
Spanning Tree	~	Password Type	Clear Text	-						
Multicast	~			-						
QoS	~	Password								
Security	~	Retype Password								
Access Control List	~			<b>-</b>						
MAC Address Table	~	Apply								
LLDP	~									
Diagnostics	~	✓ Local Enable Passwords								
RMON	~									
Maintenance	~	Privelege Value	Password Type	Modify						
Factory Default		15	Encrypted	Delete						
Reboot Switch										
Backup Manager										
Upgrade Manager										
Configuration Manage	IT									
Enable Password										

Password Type: Select the password type for Enable Password.

- ε Clear Text: Password without encryption.
- *e* Encrypted: Password with encryption.

Password: Password string.

**Retype Password:** Re-enter the password to make sure the password is exactly what was entered in the "Password" field.